

Noninvasive profiling of serum cytokines in breast cancer patients and clinicopathological characteristics

Shakila Jabeen^{1,2}, Jaime A. Espinoza³, Lilly Anne Torland², Manuela Zucknick⁴, Surendra Kumar^{1,5}, Vilde D. Haakensen⁵, Torben Lüders^{1,2}, Olav Engebråten^{2,6}, Anne-Lise Børresen-Dale², Jon Amund Kyte⁶, Pavel Gromov⁷, Bjørn Naume^{2,6}, Vessela Kristensen^{1,2,5,#,*}, Irina Gromova^{7,#,*}, Xavier Tekpli^{1,5,#,*}

¹ Department of Clinical Molecular Biology (EpiGen), Division of Medicine, Akershus University Hospital, Lørenskog, Norway

² Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway

³ SciLifeLab, Division of Genome Biology, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Solna, Stockholm, Sweden

⁴ Oslo Centre for Biostatistics and Epidemiology, Department of Biostatistics, Institute of Basic Medical Sciences, Faculty of Medicine, University of Oslo, Oslo, Norway

⁵ Department of Cancer Genetics, Institute for Cancer Research, Oslo University Hospital Radiumhospitalet, Oslo, Norway

⁶ Department of Oncology, Oslo University Hospital Radiumhospitalet, Oslo, Norway

⁷ Danish Cancer Society Research Center, Genome Integrity Unit, Breast Cancer Biology Group, Copenhagen, Denmark

These author equally supervised this work

Running title: Serum cytokines levels in breast cancer

Key words: Breast cancer, cytokines, pathological markers, immune response, prognosis

*** Corresponding authors:**

Dr. Xavier Tekpli,

Email: xavier.tekpli@medisin.uio.no

Dr. Irina Gromova,

Email : iig@cancer.dk

Prof. Vessela Kristensen

Email: v.n.kristensen@medisin.uio.no

Department of Genetics

Institute for Cancer Research

Oslo University Hospital Radiumhospitalet

N-0310 Oslo, Norway

Phone: +47 22 78 13 75

Fax: +47 22 78 13 95

e-mail addresses:

Shakila Jabeen: shakila.jabeen@studmed.uio.no
Jaime A. Espinoza: jaime.espinoza.ruiz@ki.se
Lilly Anne Torland: lilly_anne_torland@hotmail.com
Manuela Zucknick: manuela.zucknick@medisin.uio.no
Surendra Kumar: surendra.kumar@medisin.uio.no
Vilde D Haakensen: vilde.haakensen@gmail.com
Torben Lüders: torben.luders@medisin.uio.no
Olav Engebråten: olav.engebraten@gmail.com
Anne-Lise Børresen-Dale: a.l.borresen-dale@medisin.uio.no
Jon Amund Kyte: jon.amund.kyte@rr-research.no
Pavel Gromov: psg@CANCER.dk
Bjørn Naume: BNA@ous-hf.no
Vessela Kristensen: v.n.kristensen@medisin.uio.no
Irina Gromova: iig@CANCER.dk
Xavier Tekpli: xavier.tekpli@medisin.uio.no

Abstract

Cancers elicit an immune response by modifying the microenvironment. The immune system plays a pivotal role in cancer recognition and eradication. While the potential clinical value of infiltrating lymphocytes at the tumor site has been assessed in breast cancer, circulating cytokines—the molecules coordinating and fine tuning immune response—are still poorly characterized.

Using two breast cancer cohorts (MicMa, n = 131, DCTB, n = 28) and the multiplex Luminex platform, we measured the levels of 27 cytokines in the serum of breast cancer patients prior to treatment. We investigated the cytokine levels in relation to clinicopathological characteristics and in perspective of the tumor infiltrating immune cells predicted from the bulk mRNA expression data.

Unsupervised clustering analysis of the serum cytokine levels in the MicMa cohort identified a cluster of pro-inflammatory, pro-angiogenic, and Th2-related cytokines which was associated with poor prognosis. Notably high levels of platelet derived growth factor BB (PDGF) reflected a more aggressive tumor phenotype and larger tumor size. A significant positive correlation between serum levels of interferon gamma-induced protein 10 (IP10) and its mRNA expression at the tumor site suggested that tumor-IP10-production may outflow to the bloodstream. High IP10 serum levels were associated with a worse prognosis. Finally, we found serum levels of both PDGF and IP10 associated with enrichment scores of specific tumor infiltrating immune cells.

Our study suggests that monitoring cytokine circulating levels in breast cancer could be used to characterize breast cancers and the immune composition of their microenvironment through readily available biological material.

Abbreviations: **ER:** estrogen receptor; **PR:** progesterone receptor; **IHC:** immunohistochemistry; **HER2:** Human epidermal growth factor receptor 2; **PAM50:** Prediction Analysis of Microarray 50; **TIF:** tumor interstitial fluid; **NIF:** normal interstitial fluid; **PCA (statistics):** Principal component analysis; **ssGSEA:** single sample gene set enrichment analysis; **TAMs:** tumor-associated macrophages; **DCIS:** ductal carcinoma *in situ*

Introduction

The immune system plays a key role in cancer recognition and eradication. More than 60 years ago the idea that the immune system recognizes cancer cells and inhibits their growth was introduced.¹ Cancers induce a local immune response through the expression of neo-antigens and/or by modifying the microenvironment.² Characterizing the quality and the quantity of local immune response at the tumor site will improve our understanding of how the microenvironment influences tumor progression and clinical outcome. Cytokines, chemokines, and growth factors are small molecules secreted by stromal, immune, and/or tumor cells, to coordinate and fine tune the immune response.³⁻⁵ Cytokine serum levels may represent interesting noninvasive biomarker of tumor-induced immune response, in the detection of cancers or in the monitoring of pathogenesis.

Breast cancer is the most frequent cancer among women worldwide. Classical clinical and pathological markers used to stratify patients are tumor size, estrogen receptor (ER) status, and human epidermal growth factor receptor 2 (HER2) status. The recently clinically approved PAM50 classification divides breast cancers into five subgroups according to gene expression⁶ which comprehensively recapitulates the classical pathological markers. Lymphocytic infiltration is more abundant in ER negative compared to ER positive breast cancers. In addition, high immune infiltration has been associated with an increased response to neo-adjuvant and adjuvant chemotherapy.⁷ Various methods have been used to quantify immune infiltration in breast cancer, however, they are all invasive and very few studies have assessed cytokines levels as surrogates of immune infiltration.

In a recent study performed in the DCTB cohort, we measured the levels of cytokines in breast tumor interstitial fluid (TIF) and compared it to levels in the interstitial fluid from normal breast specimens (NIF) recovered from the same patient.⁸ Our results, based on both cytokine measurements and immunohistochemistry (IHC) of immune cells indicated that the presence of a tumor increased the levels of several cytokines in the interstitial fluid. Of particular interest, increased levels of IL5 in the TIF was associated with worse prognosis.⁸

As tumor interstitial fluid is hardly accessible and to further investigate the relevance of circulating cytokines in breast cancer, we measured serum levels of 27 cytokines in two breast cancer cohorts (MicMa, n = 131 and DCTB, n = 28) using the multiplex Luminex technology.

We investigated the relationship between cytokine levels and well-known clinicopathological parameters. We report here findings from both cohorts. Our results indicate that high serum levels of pro-inflammatory and Th2-related cytokines could be associated with a worse prognosis and may be an indicator of more advanced-staged and aggressive cancer. Notably, high serum levels of platelet derived growth factor BB (PDGF) were associated with larger tumors and HER2 positivity. Serum-IP10 levels correlated with its mRNA expression levels within the tumor and with worse prognosis. Finally, we brought serum cytokine levels in perspective of the predicted infiltrating immune cell types at the tumor site to provide more explanation on how PDGF and IP10 levels may relate to pathogenesis.

Results

Clustering of cytokines in the serum of breast cancer patients

27 cytokines levels were measured in the serum of breast cancer patients using a multiplex bead-based immune assay (Luminex). Two independent cohorts were evaluated: the MicMa (n = 131) collected in Oslo, Norway⁹ and the DCTB (n = 28) collected in Denmark.⁸ Principal component analysis (PCA) demonstrated a separation of the samples from the two cohorts based on the cytokine serum levels, possibly due to batch effects ([Figure 1A](#)). Observing a strong separation based on PCA, we further analyzed the two cohorts separately as discovery (MicMa) and validation (DCTB).

We performed unsupervised clustering based on the cytokine serum levels from MicMa. The obtained clusters were independent of ER and HER2 statuses ([Figure 1B](#)). We identified four clusters composed of cytokines with similar functions. Of interest, cluster-4-cytokines was composed of pro-inflammatory, pro-angiogenic, and Th2-related cytokines (IL15, VEGF, GM-CSF, PDGF, IL17, IL5, IL4, and FGF). These cytokines are known to act as pro-tumorigenic molecules.^{10, 11} We therefore sought to estimate the variation of cluster-4-cytokines activity over the MicMa cohort in an unsupervised manner using the Gene Set Variation Analysis (GSVA) method.¹² We found that breast cancer patients with a cluster-4-cytokines enrichment score above the median had a significantly worse overall survival ([Figure 1C](#)). We also scored the DCTB samples using the same method. In the DCTB, we found more samples with higher cytokine-cluster-4 enrichment scores as depicted in [Supplementary Figure 1](#), we therefore used the bimodal Gaussian distribution of the score and a finite mixture model to define samples with high or low score. We confirmed the tendency of worse prognosis for patients with a higher cytokine-cluster-4 enrichment score ([Figure 1D](#)).

This initial analysis of all 27 cytokines together highlighted the relevance of measuring circulating cytokines in breast cancer patients' serum.

Assessment of individual cytokines

We next investigated the relationship between each cytokine and clinical parameters (see [Supplementary Table 1-3](#), for summary of the statistics according to ER status HER2 status and tumor size). In both MicMa and the DCTB cohorts IL17, a cytokine mainly produced by Th17 cells,¹³ was the only cytokine with significantly different serum levels according to hormone

receptors status (ER or PR); showing higher expression in the serum of breast cancer patients with an ER negative (Figure 2A and 2B) or PR negative tumor (Supplementary Figure 2A and 2B).

Platelet derived growth factor BB (PDGF) is a growth factor mainly produced by activated platelets, macrophages, endothelial, smooth, and tumor cells,¹⁴ we found higher serum levels of PDGF associated with HER2 positive tumors (Figure 2C and 2D) and with larger tumor size (Figure 2E and 2F). PDGF is part of the cluster-4-cytokine identified in Figure 1B; and high levels may therefore reflect the presence of a more aggressive breast cancer type. Indeed, patients with the highest serum levels of PDGF (highest tertile) had a trend for worse prognosis (Supplementary Figure 3A and 3B; MicMa: $p = 0.06$, DCTB: $p = 0.24$, log-rank tests).

In one cohort only: significantly lower levels of G-CSF were associated with HER2 positivity in the MicMa study, while high levels of IL2, IL17, FGF, and GM-CSF were detected among HER2 positive DCTB patients (Supplementary Table 2). Furthermore, higher levels of IP10 in MicMa and of IL2, IL8, and IL9 in DCTB, were associated with larger tumors (Supplementary Table 3).

Together, these analyses suggest that serum levels of PDGF and IL17 may reflect important clinical parameters of the breast tumor.

Serum cytokines levels and their intra-tumor mRNA expression levels

To investigate whether the levels of serum cytokines may be affected or may derive from tumor-produced cytokines, we retrieved the tumor expression data for the MicMa (GSE19783),¹⁵ while for the DCTB, we generated mRNA expression profiles from fresh frozen tumors. The DCTB data set of mRNA expression is now available in GEO with accession number GSEXXX. 98 MicMa and 25 DCTB samples were assessed, for both serum cytokine levels and for mRNA profiling. Heatmaps using Pearson correlations were generated to visualize the degree of correlation between the cytokine serum levels and their corresponding mRNA levels at the tumor site (Supplementary Figure 4A and 4B). We found the pattern of intercorrelation between cytokine-serum levels and tumor mRNA expression significantly different between the two cohorts (paired t-test > 0.05). When we focused only on each cytokine serum level and their corresponding mRNA expression at the tumor site we found only IP10 serum level positively correlated with its gene expression (CXCL10) in the primary tumor in both cohorts; MicMa ($r = 0.32$, $p = 0.001$) and DCTB ($r = 0.66$, $p = 0.0003$) (Figure 3A and 3B, Supplementary Table

4). IP10 (CXCL10) is a pro-inflammatory cytokine which may promote breast cancer cell proliferation.¹⁶ Survival analyses revealed that high serum levels of IP10 (higher than the median) were significantly associated with worse outcome in the MicMa cohort (Figure 3C, $p = 0.004$). Although not significant, the same trend was observed in the smaller DCTB cohort (Figure 3D).

Altogether, these results indicate that IP10 serum levels may be possibly explained by leakage of tumor-produced IP10 into the bloodstream; high IP10 serum levels may indicate worse prognosis.

Tumor immune infiltration and circulating cytokine levels.

To further investigate the possible mechanisms by which cytokine serum levels may be related to pathogenesis, we analyzed cytokine profiles in perspective of the tumor infiltrating immune cells. Using expression data and the algorithm, xCell, we inferred the extent of immune cell infiltration in the tumor of the patients in both cohorts. xCell uses the single sample gene set enrichment analysis (ssGSEA) method¹⁷ to predict the relative enrichment of 64 cell types by using gene expression values from bulk tumor samples. Here, we focused on the 26 most common immune cell types (Supplementary Table 5).

Immunohistochemistry (IHC) has been previously performed on the DCTB cohort to estimate the type of leukocyte infiltration present in the tumors, notably, cytotoxic T-lymphocytes (anti-CD8+ antibodies), and tumor-associated macrophages (TAMs) (anti-CD68 antibodies) were assessed⁸. We therefore examined the relationship between intensity of CD8 and CD68 staining and xCell scores for immune cell types expressing these surface markers. We found a positive correlation between IHC staining and xCell scores (Supplementary Figure 5A and B) which indicates that xCell scoring could be a good surrogate to investigate immune cell infiltration.

Then, in both cohorts, we assessed the relationship between the measured serum levels of the 27 cytokines and the inferred immune cell infiltration using Pearson correlation heatmaps (Figure 4A and 4B). As our initial results pointed to PDGF and IP10 being the most interesting cytokine to measure in the serum, in respect to the tumor phenotype, we looked for immune cell types infiltrating the tumor correlating with the levels of these two cytokines. We found that patients with the highest levels of pro-B cells (highest quartile) in their tumor also show significantly higher levels of PDGF in matched serum (Figure 4C and 4D). Furthermore, samples with low natural killer T (NKT) scores (lowest quartile) had higher levels of PDGF (Figure 4E and 4F). In summary, high levels of PDGF in the serum, which we found associated to more advanced and

aggressive tumors are associated with lower levels of NKT and high levels of pro-B cells. Concerning IP10 levels, the heatmaps revealed a positive correlation with type M1 macrophages (MicMa, $r = 0.2$, $p = 0.05$; DCTB, $r = 0.57$, $p = 0.003$) ([Supplementary Figure 6](#)). Altogether, these analyses provide clues to understand the mechanisms by which the serum cytokine levels associate with clinicopathological parameters.

Discussion

The immune system plays a pivotal role in cancer recognition and eradication.¹⁸ Experimental and clinical evidence suggests that cancers elicit an immune response through the expression of neo-antigens or by modifying the tumor microenvironment. Recent studies have assessed the relevance of immune infiltration in regard to risk of relapse, clinical subtypes or response to therapy in breast cancers.¹⁹⁻²² Here, we focused on circulating cytokine levels and found that PDGF, IL17, and IP10 serum levels may be used to characterize breast cancers and the immune composition of their microenvironment.

Our previous studies of integrated molecular profiles of invasive breast tumors and ductal carcinoma *in situ* (DCIS) obtained by PARADIGM revealed differential vascular and interleukin signaling associated with different tumor phenotype. The interleukin signaling profiles observed in invasive cancers were absent or weakly expressed in healthy tissue, but already prominent in DCIS. The most prominent difference associated with mammographic density in healthy breast tissue was that of STAT4 signaling.²³ We have also shown that the density of immune cells that infiltrate a breast tumor tissue is highly dependent on tumor subtype.²⁴ The immune cell types found in the vicinity of growing tumor cells is very wide and complex, the predominant type of infiltrating leukocyte, or their location within the growing tumor influence pathogenesis.²⁵ However, there are no good clinical guidelines for the use of information on immune infiltration into the treatment of breast cancer.

Cytokines, the molecules orchestrating the immune response, are still poorly characterized in breast cancer. We previously highlighted the relevance of measuring cytokines in breast cancer; we found several cytokines levels elevated in the tumor interstitial fluids when compared to the interstitial fluid of normal tissue.⁸ In the current study, we measured 27 cytokines in the serum of breast cancer patients from two cohorts (MicMa, n = 131) and DCTB (n = 28). We assessed cytokine serum levels in perspective of clinicopathological features. To extract the significant and reproducible results we treated the two cohorts as discovery (MicMa) and validation (DCTB) cohorts. The low number of samples in the DCTB cohort may have hindered the validation of results discovered in the MicMa cohort. We believe that the smaller sample size in the DCTB cohort was the reason why the significant survival results found in the MicMa were not fully validated in the DCTB cohort. In addition, ER, PR, and HER2 definitions were different in both

cohorts; for example, the MicMa tumors were considered ER positive if more than 10% of the tumor cells were positively immunostained, while in DCTB which is a “newer” cohort, the current St Gallen 2015²⁶ (> 1%) criteria were used. This led to differences in classification of the samples and may also have interfered with validation of some results. Finally, even though the number of tests was relatively small (27 cytokines) we did not correct our p-values in each cohort according to multiple testing and instead focused on the significant results found in both cohorts.

Therefore, our results would benefit from additional, independent validations, but give excellent ground for more targeted cytokine measurement and emphasize the potential of using readily available serum samples in breast cancer research and clinical practice.

We found PDGF levels significantly higher in the serum of patients with larger tumors or with a positive HER2 status. These results suggest that high serum levels of PDGF reflect a more aggressive and advanced tumor phenotype. Matsumoto et al., showed that higher levels of PDGF-bb were associated with poor prognosis in esophageal cancers,²⁷ while Eide et al found higher PDGF-bb serum levels in lung cancer compared to COPD patients.²⁸ In the MicMa cohort higher levels of PDGF were associated with worse prognosis, the same tendency although not significant, was observed in the DCTB cohort. The PDGF family of growth factors play a role in lymphangiogenesis.²⁹ Even though we did not find a correlation between PDGF serum levels and its tumor mRNA expression, we previously reported that the tumor interstitial fluid levels of PDGF were higher than in the normal interstitial fluid,⁸ which suggest that the tumor microenvironment may contribute to the production of PDGF. Using mRNA expression data to predict for different immune cell type infiltration, we report a positive correlation between PDGF serum levels and pro-B cells infiltration. Given that both B cells and PDGF are involved in lymphangiogenesis,³⁰ our result suggest that high levels of serum PDGF may reflect lymphangiogenesis in cooperation with B cells at the tumor site. As proposed also by others³¹ our study comes to suggest that PDGF acts as a pro-tumorigenic cytokine and its inhibition may enhance the efficacy of chemotherapy.

In this study, we found higher levels of IL17 in the serum of patients with an ER negative tumor when compared to the serum ER positive patients. IL17 is a pleiotropic cytokine mainly secreted by Th17 cells, which may exert pro- or anti- tumorigenic effects.¹³ Elevated levels of IL17 have been found in the microenvironment of ER negative breast tumors and associated with a worse

prognosis.^{32, 33} Our study reinforces the association between IL17 levels and ER status and further suggest that the higher levels of IL17 and therefore Th17 cell activity observed in the microenvironment of ER negative breast cancers can also be measured in the serum.

We previously reported higher IP10 levels on the tumor interstitial fluid of breast cancer patients. IP10 is widely expressed by both cancer cells and tumor-infiltrating lymphocytes.⁸ Here we report a positive correlation between IP10 tumor-derived mRNA expression and circulating serum levels. IP10 act as a chemo-attractant for monocytes^{34, 35} which may explain the herein reported positive correlation between IP10 and type M1 Macrophages. IP10 has been reported as a pro- tumorigenic chemokine. Increased expression of IP10 and its receptor CXCR3 has been observed in many cancers, including malignant melanoma,³⁶ ovarian carcinoma,³⁷ multiple myeloma,³⁸ B-cell lymphoma,³⁹ and basal cell carcinoma.⁴⁰ The role of IP10 and its receptor in breast cancer progression has been demonstrated using breast cancer cell lines.¹⁶ Our results suggest that high IP10 serum levels correlate with high IP10 in the tumor microenvironment and may be a measure of worse prognosis.

In conclusion patients with advanced stage disease appear to experience a simultaneous immunostimulation and immunosuppression which may lead to disturbed cytokines production.⁴¹ Breast cancer tumors are highly heterogeneous. However, there are common clinical characteristics in patients with more advanced tumor phenotype. We report that PDGF and IP10 serum levels as paraneoplastic signals may reflect the presence of larger tumor and a worse prognosis. We further suggest that cytokine serum levels may be associated with specific immune cell types at the tumor site. Our results emphasize the value of measuring serum cytokine levels in breast cancer.

Materials and Methods

Patient material

MicMa cohort

Operable early breast cancer patients were included in the Oslo1 micrometastasis observational study between 1995 and 1998.⁴² Related to the current results, sera were collected at the time of surgery. A subset of the patient's fresh primary tumors was collected for detailed molecular analyses, a cohort called MicMa. Only patients within the MicMa subset were included in the current analysis. The study is approved by the Regional Ethics Committee. Written informed consent was obtained from all participants, the study was conducted in accordance with the Declaration of Helsinki. Sera from 137 MicMa samples were available, six patients were excluded from the analysis due to administration of neo-adjuvant therapy. For the remaining 131 patients, their characteristics are shown in [Supplementary Table 6](#). Immunostaining was performed using mouse antibody against estrogen receptor and progesterone receptor (clones 6F11 and 1A6, respectively; Novocastra, Cat. Nos. NCL-L-ER-6F11 and NCL-L-PGR), c-erbB-2 (clone CB11; BioGenex, Cat. No. AM134). Automated immunostaining systems were used, Ventana Medical Systems, Inc (Tucson, AZ). Immunopositivity was recorded if more than 10% (ER, PR, c-erbB-2) of the tumor cells were immunostained as previously described.⁴³ The gene expression data was generated using Agilent whole genome 4x44K oligo array (Agilent Technologies, Cat. No. G4112F) as previously described¹⁵ and is available at GEO with accession number GSE19783.

DCTB cohort

The DCTB study was conducted in compliance with the Helsinki II Declaration, written informed consent was obtained from all participants. The project was approved by the Copenhagen and Frederiksberg regional division of the Danish National Committee on Biomedical Research Ethics (KF 01-069/03). 79 breast cancer patients were included in this cohort as previously described.⁸ In our recent publication using this cohort, tumor interstitial fluid was extracted from small surgically resected breast tumor pieces, matched sera from 28 women were obtained prior surgery. Characteristics of these 28 patients are shown in [Supplementary Table 6](#). Samples were considered negative for ER when the percentage of nuclear immunoreactivity within the invasive

cancer cells was < 1%. Samples with HER2/centromere 17 ratio > 2 were considered HER2 positive.

mRNA expression profiling

Total RNA was isolated using the TRIzol reagent (Thermo Fisher Scientific, Cat. No. 15596026) following the manufacturer's instructions. NanoDrop spectrophotometric analysis (Thermo Fisher Scientific, Waltham, MA, USA) assessed RNA concentration and purity. RNA quality and integrity were assessed by the 2100 Bioanalyzer instrument (Agilent Technologies, Santa Clara, CA, USA). mRNA expression was measured using SurePrint G3 Human GE 8x60K one-color microarrays from Agilent (Agilent Technologies, Cat. No. G4851A) according to the manufacturer's protocol and using 100 ng of RNA as input for amplification.

Scanning was performed with Agilent Scanner G2565A, and signals were extracted using Feature Extraction v.10.7.3.1 (Agilent Technologies). Non-uniform spots were excluded and missing data were imputed using local least squares imputation (LLSImpute from the R package "pcaMethods")⁴⁴. Arrays were log₂-transformed and quantile-normalized. mRNA expression data have been submitted to the Gene Expression Omnibus (GEO) database under accession number (GSEXXX).

Cytokine profiling

A total of 27 molecules including interleukins, chemokines, growth factors, interferon (IFN), and tumor necrosis factor (TNF), were measured in a 27-plex commercially available cytokine panel (Bio-Rad Laboratories, Cat. No. M500KCAF0Y) and were analyzed with the Luminex xMAP 200 platform (Luminex Corporation, Austin, TX, USA). The assays included a series of known concentrations to generate standard curves. The results obtained were collected and processed with Bio-Plex Manager 6.0 (Bio-Rad Laboratories). Details of the cytokines are given in [Supplementary Table 7](#). Natural log transformed cytokines levels (pg/mL) for the MicMa and the DCTB cohorts are given in [Supplementary Table 8](#).

Statistical analysis

All analyses were performed in the R⁴⁵ version 3.3.2. Cytokine levels were analyzed in relation to clinical parameters using Mann-Whitney-U (MWU) or Kruskal-Wallis tests. Unless otherwise stated, results were considered statistically significant, if p-value < 0.05. Hierarchical clustering

was performed using the R package pheatmap (version 1.08)⁴⁶ clusters were identified using the cutree function. Pearson rank correlations were visualized using R package corrplot (version 0.84). Survival analysis using Kaplan-Meier survival curves for overall survival were compared by the log-rank test. Cytokine-cluster4 scores were calculated using the GSVA Bioconductor package.¹² Enrichment score for immune cell type at the tumor site was calculated using xCell R package with default parameters.¹⁷ xCell relies on single-sample GSEA (ssGSEA) and newly generated gene signatures for 64 cell types to digitally dissect the tumor microenvironment. In our study, we focused on 27 immune cell types, the xCell scores from these 27 immune cell types can be found in [Supplementary Table 5](#).

Acknowledgements

Sera from the MicMa cohorts were collected with the support of the grants from the Norwegian Cancer Society (D99061, PI: Bjørn Naume), the Norwegian Research Council (155218/300) and the SalusAnsvar Award to ALBD. DCTB project was supported by grants from The Eurocan Platform, which has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement No. 260791. The Danish Cancer Society, the “Race Against Breast Cancer” foundation, the John and Birthe Meyer Foundation, the Danish National Research Foundation (Centre of Excellence: CARD, DNRF125). Cytokine profiling was performed with a grant from Strategiske Ahus midler, grant 266972. Shakila Jabeen was financed by the South Eastern Norway Health Authority (grant 272904 to Vessela Kristensen).

Disclosure statement

The authors have no conflicts of interest to declare.

References

1. Burnet FM. The concept of immunological surveillance. *Prog Exp Tumor Res* 1970; 13:1-27.
2. Dunn GP, Bruce AT, Ikeda H, Old LJ, Schreiber RD. Cancer immunoediting: from immunosurveillance to tumor escape. *Nat Immunol* 2002; 3:991-8.
3. Parrish-Novak J, Dillon SR, Nelson A, Hammond A, Sprecher C, Gross JA, et al. Interleukin 21 and its receptor are involved in NK cell expansion and regulation of lymphocyte function. *Nature* 2000; 408:57-63.
4. Tan JT, Dudl E, LeRoy E, Murray R, Sprent J, Weinberg KI, et al. IL-7 is critical for homeostatic proliferation and survival of naive T cells. *Proceedings of the National Academy of Sciences of the United States of America* 2001; 98:8732-7.
5. Zou L, Barnett B, Safah H, Larussa VF, Evdemon-Hogan M, Mottram P, et al. Bone marrow is a reservoir for CD4+CD25+ regulatory T cells that traffic through CXCL12/CXCR4 signals. *Cancer Res* 2004; 64:8451-5.
6. Parker JS, Mullins M, Cheang MC, Leung S, Voduc D, Vickery T, et al. Supervised risk predictor of breast cancer based on intrinsic subtypes. *J Clin Oncol* 2009; 27:1160-7.
7. Pruneri G, Vingiani A, Denkert C. Tumor infiltrating lymphocytes in early breast cancer. *Breast* 2018; 37:207-14.
8. Espinoza JA, Jabeen S, Batra R, Papaleo E, Haakensen V, Timmermans Wielenga V, et al. Cytokine profiling of tumor interstitial fluid of the breast and its relationship with lymphocyte infiltration and clinicopathological characteristics. *Oncoimmunology* 2016; 5:e1248015.
9. Naume B, Zhao X, Synnestvedt M, Borgen E, Russnes HG, Lingjaerde OC, et al. Presence of bone marrow micrometastasis is associated with different recurrence risk within molecular subtypes of breast cancer. *Molecular oncology* 2007; 1:160-71.
10. Mantovani A, Allavena P, Sica A, Balkwill F. Cancer-related inflammation. *Nature* 2008; 454:436-44.
11. West NR, McCuaig S, Franchini F, Powrie F. Emerging cytokine networks in colorectal cancer. *Nat Rev Immunol* 2015; 15:615-29.
12. Hanzelmann S, Castelo R, Guinney J. GSEA: gene set variation analysis for microarray and RNA-seq data. *BMC Bioinformatics* 2013; 14:7.
13. Chen K, Kolls JK. Interleukin-17A (IL17A). *Gene* 2017; 614:8-14.
14. Papadopoulos N, Lennartsson J. The PDGF/PDGFR pathway as a drug target. *Mol Aspects Med* 2017.
15. Enerly E, Steinfeld I, Kleivi K, Leivonen SK, Aure MR, Russnes HG, et al. miRNA-mRNA integrated analysis reveals roles for miRNAs in primary breast tumors. *PLoS One* 2011; 6:e16915.
16. Datta D, Flaxenburg JA, Laxmanan S, Geehan C, Grimm M, Waaga-Gasser AM, et al. Ras-induced modulation of CXCL10 and its receptor splice variant CXCR3-B in MDA-MB-435 and MCF-7 cells: relevance for the development of human breast cancer. *Cancer Res* 2006; 66:9509-18.
17. Aran D, Hu Z, Butte AJ. xCell: digitally portraying the tissue cellular heterogeneity landscape. *Genome Biol* 2017; 18:220.
18. Blankenstein T, Coulie PG, Gilboa E, Jaffee EM. The determinants of tumour immunogenicity. *Nat Rev Cancer* 2012; 12:307-13.
19. Ali HR, Chlon L, Pharoah PD, Markowitz F, Caldas C. Patterns of Immune Infiltration in Breast Cancer and Their Clinical Implications: A Gene-Expression-Based Retrospective Study. *PLoS Med* 2016; 13:e1002194.
20. Dannenfels R, Nome M, Tahiri A, Ursini-Siegel J, Volland HKM, Haakensen VD, et al. Data-driven analysis of immune infiltrate in a large cohort of breast cancer and its association with disease progression, ER activity, and genomic complexity. *Oncotarget* 2017; 8:57121-33.

21. Desmedt C, Salgado R, Fornili M, Pruneri G, Van den Eynden G, Zoppoli G, et al. Immune Infiltration in Invasive Lobular Breast Cancer. *J Natl Cancer Inst* 2018.
22. Loi S, Sirtaine N, Piette F, Salgado R, Viale G, Van Eenoo F, et al. Prognostic and predictive value of tumor-infiltrating lymphocytes in a phase III randomized adjuvant breast cancer trial in node-positive breast cancer comparing the addition of docetaxel to doxorubicin with doxorubicin-based chemotherapy: BIG 02-98. *J Clin Oncol* 2013; 31:860-7.
23. Kristensen VN, Vaske CJ, Ursini-Siegel J, Van Loo P, Nordgard SH, Sachidanandam R, et al. Integrated molecular profiles of invasive breast tumors and ductal carcinoma in situ (DCIS) reveal differential vascular and interleukin signaling. *Proc Natl Acad Sci U S A* 2012; 109:2802-7.
24. Quigley D, Silwal-Pandit L, Dannenfelser R, Langerod A, Vollan HK, Vaske C, et al. Lymphocyte Invasion in IC10/Basal-Like Breast Tumors Is Associated with Wild-Type TP53. *Mol Cancer Res* 2015; 13:493-501.
25. Fridman WH, Pages F, Sautes-Fridman C, Galon J. The immune contexture in human tumours: impact on clinical outcome. *Nat Rev Cancer* 2012; 12:298-306.
26. Esposito A, Criscitiello C, Curigliano G. Highlights from the 14(th) St Gallen International Breast Cancer Conference 2015 in Vienna: Dealing with classification, prognostication, and prediction refinement to personalize the treatment of patients with early breast cancer. *Ecancermedicallscience* 2015; 9:518.
27. Matsumoto S, Yamada Y, Narikiyo M, Ueno M, Tamaki H, Miki K, et al. Prognostic significance of platelet-derived growth factor-BB expression in human esophageal squamous cell carcinomas. *Anticancer Res* 2007; 27:2409-14.
28. Eide HA, Halvorsen AR, Sandhu V, Fane A, Berg J, Haakensen VD, et al. Non-small cell lung cancer is characterised by a distinct inflammatory signature in serum compared with chronic obstructive pulmonary disease. *Clin Transl Immunology* 2016; 5:e109.
29. Vincent L, Rafii S. Vascular frontiers without borders: multifaceted roles of platelet-derived growth factor (PDGF) in supporting postnatal angiogenesis and lymphangiogenesis. *Cancer Cell* 2004; 6:307-9.
30. Dubey LK, Karempudi P, Luther SA, Ludewig B, Harris NL. Interactions between fibroblastic reticular cells and B cells promote mesenteric lymph node lymphangiogenesis. *Nat Commun* 2017; 8:367.
31. Pietras K, Rubin K, Sjoblom T, Buchdunger E, Sjoquist M, Heldin CH, et al. Inhibition of PDGF receptor signaling in tumor stroma enhances antitumor effect of chemotherapy. *Cancer Res* 2002; 62:5476-84.
32. Chen WC, Lai YH, Chen HY, Guo HR, Su IJ, Chen HH. Interleukin-17-producing cell infiltration in the breast cancer tumour microenvironment is a poor prognostic factor. *Histopathology* 2013; 63:225-33.
33. Cochaud S, Giustiniani J, Thomas C, Laprevotte E, Garbar C, Savoye AM, et al. IL-17A is produced by breast cancer TILs and promotes chemoresistance and proliferation through ERK1/2. *Sci Rep* 2013; 3:3456.
34. Roberts WK, Blachere NE, Frank MO, Dousmanis A, Ransohoff RM, Darnell RB. A destructive feedback loop mediated by CXCL10 in central nervous system inflammatory disease. *Ann Neurol* 2015; 78:619-29.
35. Vazirinejad R, Ahmadi Z, Kazemi Arababadi M, Hassanshahi G, Kennedy D. The biological functions, structure and sources of CXCL10 and its outstanding part in the pathophysiology of multiple sclerosis. *Neuroimmunomodulation* 2014; 21:322-30.
36. Monteagudo C, Martin JM, Jorda E, Llombart-Bosch A. CXCR3 chemokine receptor immunoreactivity in primary cutaneous malignant melanoma: correlation with clinicopathological prognostic factors. *J Clin Pathol* 2007; 60:596-9.

37. Furuya M, Suyama T, Usui H, Kasuya Y, Nishiyama M, Tanaka N, et al. Up-regulation of CXC chemokines and their receptors: implications for proinflammatory microenvironments of ovarian carcinomas and endometriosis. *Hum Pathol* 2007; 38:1676-87.
38. Pellegrino A, Antonaci F, Russo F, Merchionne F, Ribatti D, Vacca A, et al. CXCR3-binding chemokines in multiple myeloma. *Cancer Lett* 2004; 207:221-7.
39. Jones D, Benjamin RJ, Shamsafaei A, Dorfman DM. The chemokine receptor CXCR3 is expressed in a subset of B-cell lymphomas and is a marker of B-cell chronic lymphocytic leukemia. *Blood* 2000; 95:627-32.
40. Lo BK, Yu M, Zloty D, Cowan B, Shapiro J, McElwee KJ. CXCR3/ligands are significantly involved in the tumorigenesis of basal cell carcinomas. *Am J Pathol* 2010; 176:2435-46.
41. Lippitz BE. Cytokine patterns in patients with cancer: a systematic review. *Lancet Oncol* 2013; 14:e218-28.
42. Naume B, Wiedswang G, Borgen E, Kvalheim G, Karesen R, Qvist H, et al. The prognostic value of isolated tumor cells in bone marrow in breast cancer patients: evaluation of morphological categories and the number of clinically significant cells. *Clin Cancer Res* 2004; 10:3091-7.
43. Wiedswang G, Borgen E, Karesen R, Kvalheim G, Nesland JM, Qvist H, et al. Detection of isolated tumor cells in bone marrow is an independent prognostic factor in breast cancer. *J Clin Oncol* 2003; 21:3469-78.
44. Stacklies W, Redestig H, Scholz M, Walther D, Selbig J. *pcaMethods*--a bioconductor package providing PCA methods for incomplete data. *Bioinformatics* 2007; 23:1164-7.
45. R Core Team. *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing, 2018.
46. Kolde R. *heatmap: Pretty Heatmaps*. R package version 1.0.8. 2015.

Figure legends

Figure 1: Clusters of cytokine serum levels in relation to prognosis.

(A) Principal component analysis was performed using the serum levels of the 27 cytokines measured by Luminex. Scatter plot of principal component 1 and 2 are represented, each dot represents a sample projected in the two main principal components (PC1 and PC2); the dots are colored according to the cohort they belong to.

(B) Unsupervised clustering of cytokine levels in the MicMa cohort (n = 131) using the R package pheatmap with Euclidean distance and Ward.D linkage. Annotations of the rows of the heatmap indicate histopathological features of the patients: ER and HER2 statuses. Cytokines in columns are annotated in regard to the classical function they exert according to the literature. Cluster were identified using cutree.

(C & D) Sample-wise enrichment scores for cluster-4-cytokines was calculated using Gene Set Variation Analysis (GSVA) and the 8 cytokines of cluster 4 (FGF, VEGF, GM-CSF, PDGF, IL17, IL5, IL4, IL15). MicMa and DCTB samples were divided in two groups (high and low score) according to the median for the MicMa and the density distribution of the score plotted in Supplementary Figure 1 for the DCTB. Kaplan-Meier survival curves for the high (red) and low (blue) cluster-4-cytokines scores are depicted for MicMa (C) and DCTB (D). The p-values are from log-rank tests.

Figure 2: Serum cytokine levels and clinicopathological parameters.

(A & B) Boxplots represent the average serum levels of IL17 (log pg/mL) in ER positive (ER pos, gray) and ER negative (ER neg, white) tumors in the MicMa (A) and DCTB (B) cohorts. IL17 levels are significantly higher in ER negative samples.

(C & D) Average PDGF serum levels (log pg/mL) are visualized using boxplot in regard to HER2 status in the MicMa (C) and the DCTB (D) cohorts. White boxes, HER2 negative samples (HER2 neg), pink boxes HER2 positive samples (HER2 pos).

(E & F) Boxplots represent the average serum levels of PDGF (log pg/mL) in small (< 2cm, white) or larger (> 2cm, blue) tumors in the MicMa (E) and DCTB (F) cohorts. PDGF levels are significantly higher in the serum of patient with bigger tumors. The size 2cm was chosen as a cutoff to reflect the TNM staging of the American Cancer Society.

Mann-Whitney test p-values are denoted in the bottom right of each boxplot.

Figure 3: Cytokines serum levels and corresponding tumor mRNA expression.

(A & B) Correlation analysis for IP10 serum levels and CXCL10 mRNA expression from the bulk tumor. Dots are colored according to ER status.

(C & D) Patients were divided into two groups according to the median expression of IP10. Kaplan-Meier survival curves for the high (red) and low (blue) levels of IP10 are depicted for MicMa (C) and DCTB (D). The p-values are from log-rank tests.

Figure 4: Cytokine levels and infiltrating immune cells.

(A & B) xCell and expression data were used to infer the presence of 26 immune cell types at the tumor site. Correlation heatmaps depict only the correlations with $p < 0.1$ between cytokine levels and infiltrating immune cells. Size of the dots reflect the strength of the Pearson correlation and colors the direction of the linear relationship.

(C & D) Boxplots represent the average serum levels of PDGF (pg/mL) in respect to low or high (highest quartile) scores for pro-B cells infiltration at the tumor site in the MicMa (C) and DCTB (D) cohorts. PDGF levels are significantly higher in the serum of patient with higher pro-B cells scores.

(E & F) Boxplots of serum PDGF levels according to low (lowest quartile) and high scores for natural killer T cells (NKT) infiltration at the tumor site in the MicMa (C) and DCTB (D) cohorts.

Mann-Whitney test p-values are denoted in the bottom right of each boxplot.

Supplementary Figure legends

Supplementary Figure 1: Clusters of cytokine serum levels in relation to prognosis.

Density plot showing the distribution of cluster-4-cytokine enrichment score for the MicMa (blue) and the DCTB (red) cohorts.

Supplementary Figure 2: IL17 serum levels and progesterone receptor (PR) status.

(A & B) Boxplots represent the average serum levels of IL17 (pg/mL) in PR positive (PR pos, gray) and PR negative (PR neg, white) tumors in the MicMa (A) and DCTB (B) cohorts. IL17 levels are significantly higher in PR negative samples.

Supplementary Figure 3: PDGF serum levels and prognosis.

(A & B) Patients were divided into two groups: high PDGF (highest tertile), low PDGF (lowest and second tertile). Kaplan-Meier survival curves for the high (red) and low (blue) levels of PDGF are depicted for MicMa (A) and DCTB (B). The p-values are from log-rank tests.

Supplementary Figure 4: Correlation between cytokine serum levels and cytokine mRNA expression at the tumor site.

(A & B) Correlation heatmaps illustrate the correlations between the 27 cytokines measured by the Luminex assay and their corresponding mRNA levels from bulk tumor sample expression data. Size of the dots reflect the strength of the Pearson correlation and colors the direction of the linear relationship between two variables. (A), MicMa, n = 98, (B) DCTB = 25 samples with cytokine levels and mRNA expression data.

Supplementary Figure 5: Correlation between IHC staining and xCell scores.

All samples in the DCTB cohort with expression data were analyzed with the xCell algorithm to infer for specific immune infiltration. (A) Averaged xCell scores for CD8+ naive T-cells, CD8+ T-cells, NK and NKT cells were analyzed in perspective of the levels of CD8+ immunostained lymphocytes. (B) Averaged xCell scores for Macrophages, Macrophages M1, Macrophages M2 and Monocytes were analyzed in perspective of the levels of CD68+ immunostained leukocytes. Kruskal-Wallis test p-values are denoted in the top right of each boxplot.

Supplementary Figure 6: IP10 serum levels and Macrophages enrichment at the tumor site.

(A & B) Boxplots of Macrophages M1 enrichment scores according to low and high (highest quartile) scores for IP10 serum levels in the MicMa (C) and DCTB (D) cohorts.

Mann-Whitney test p-values are denoted in the top right of each boxplot.

Figure 1

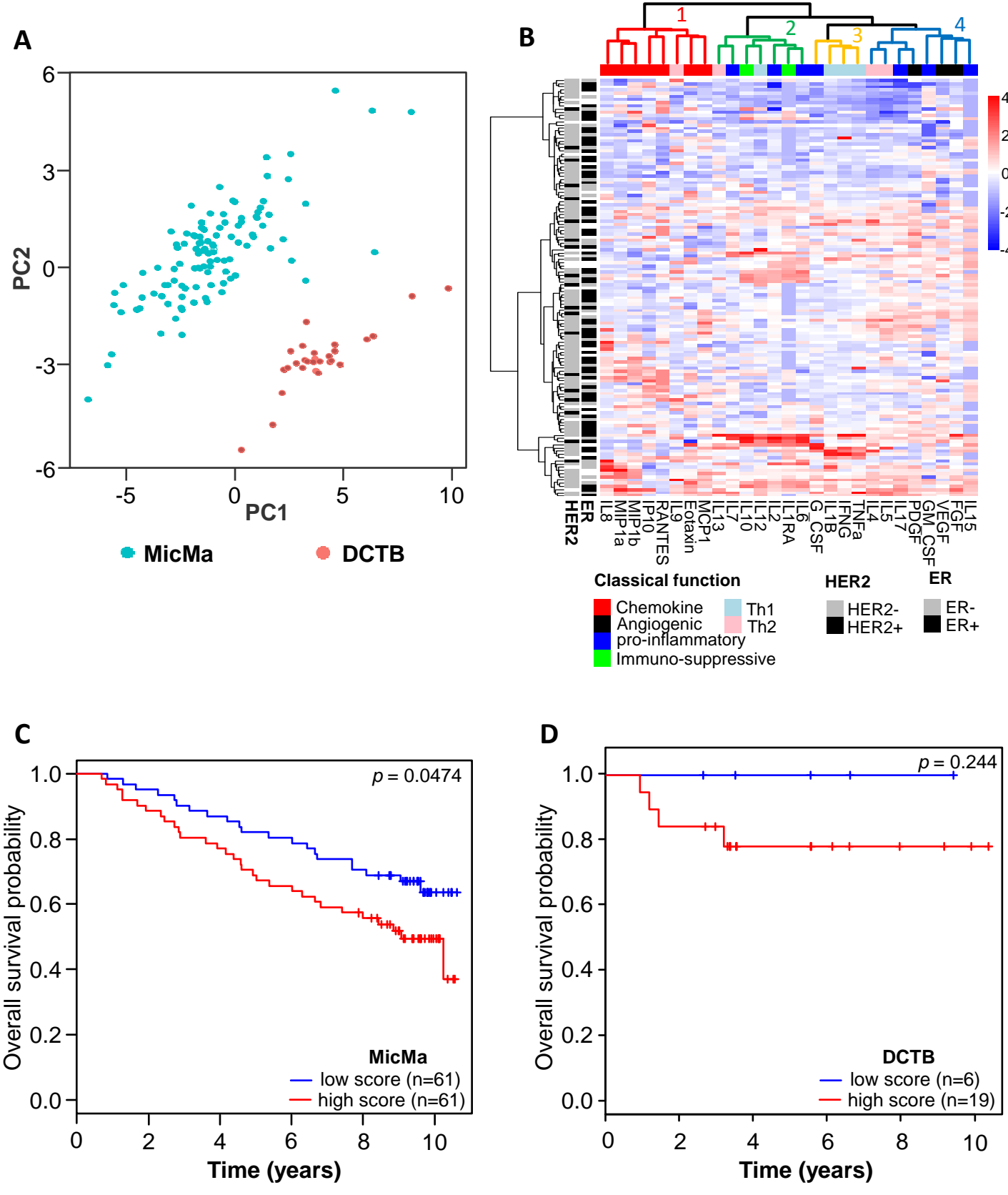


Figure 2

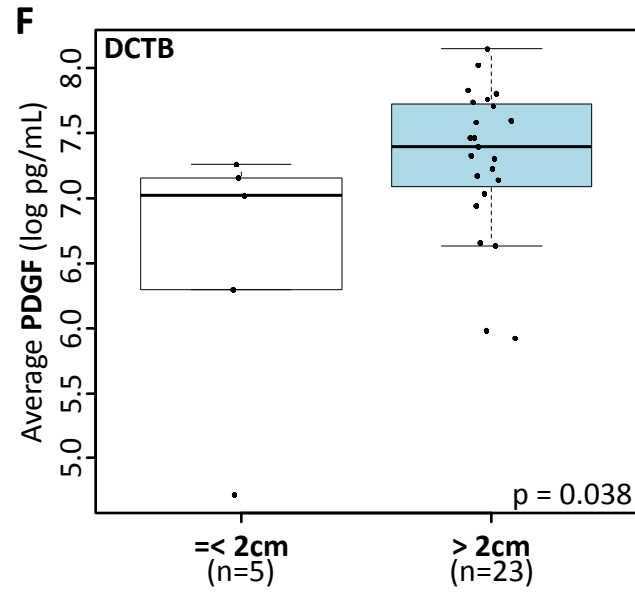
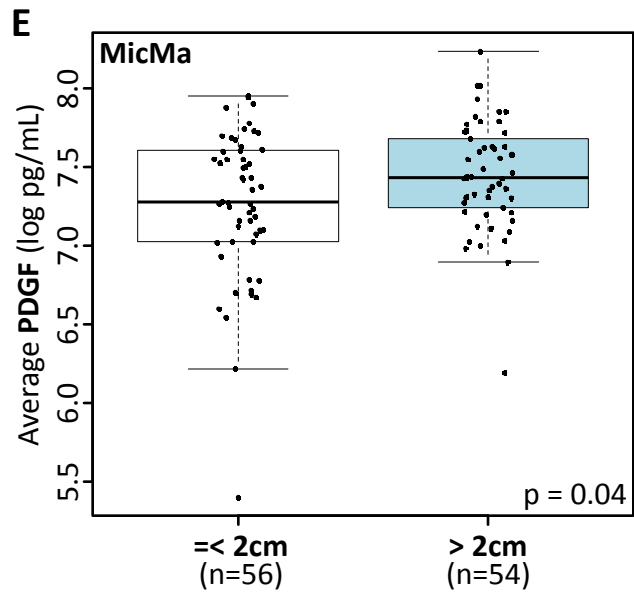
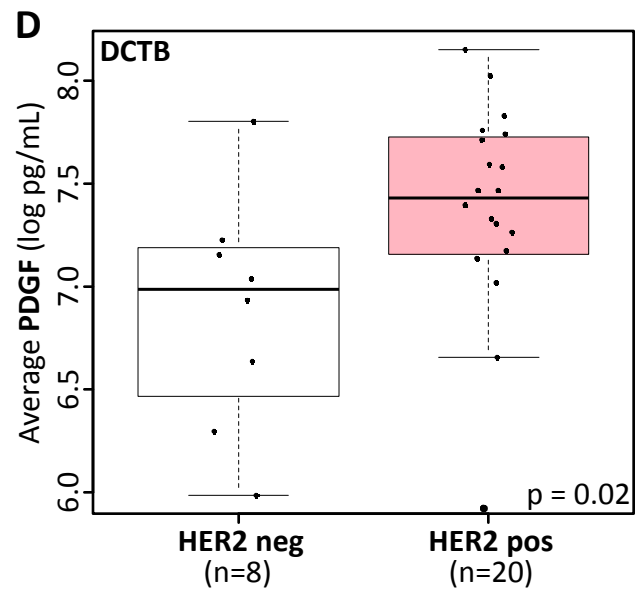
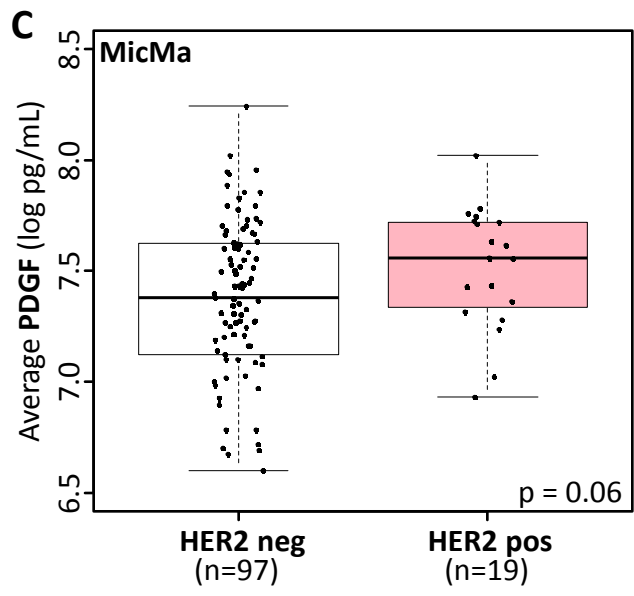
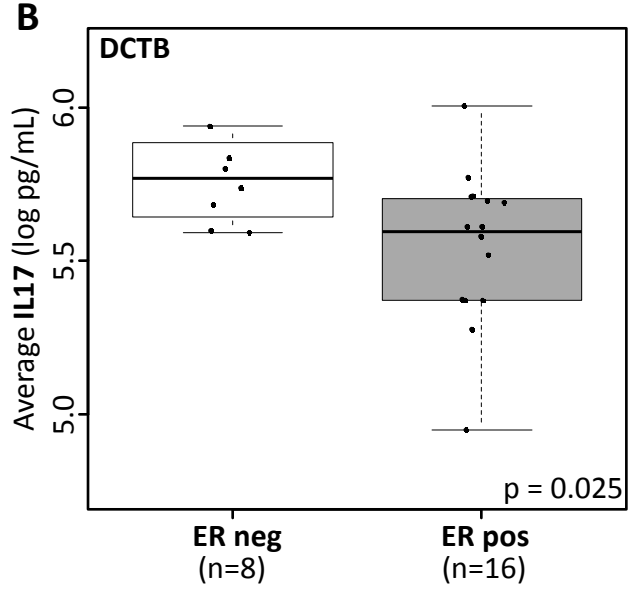
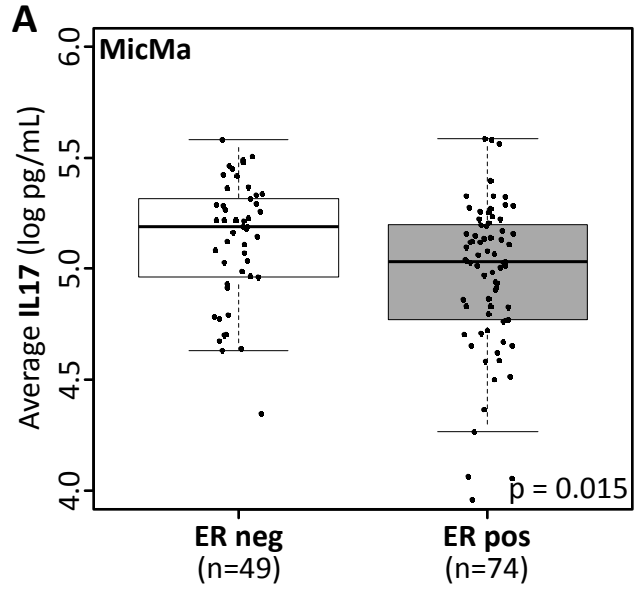


Figure 3

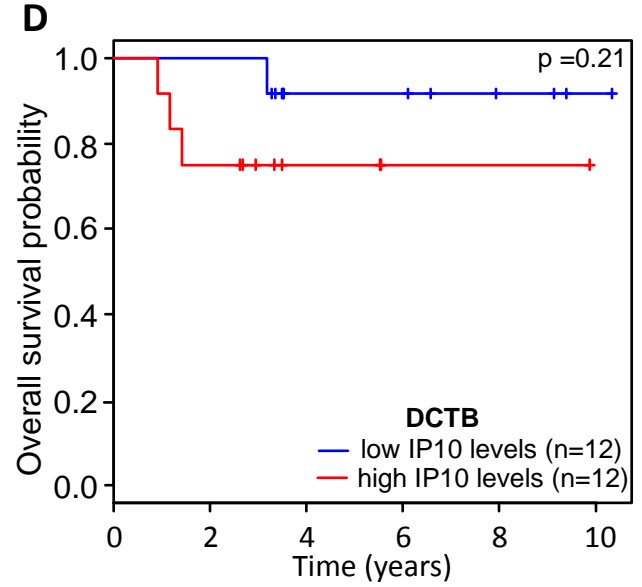
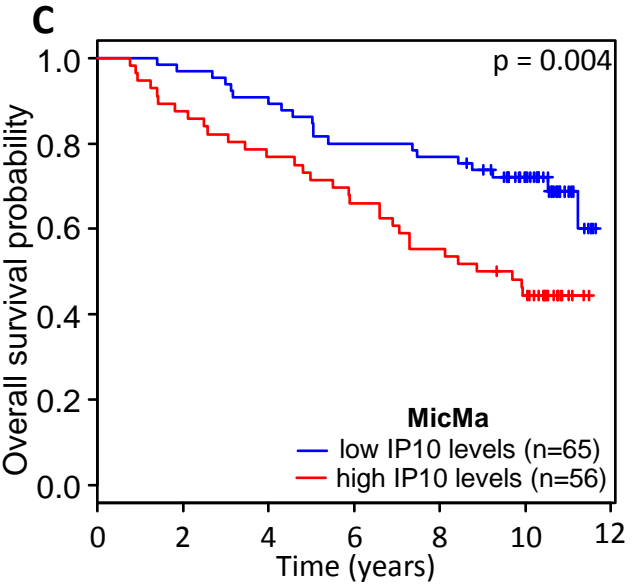
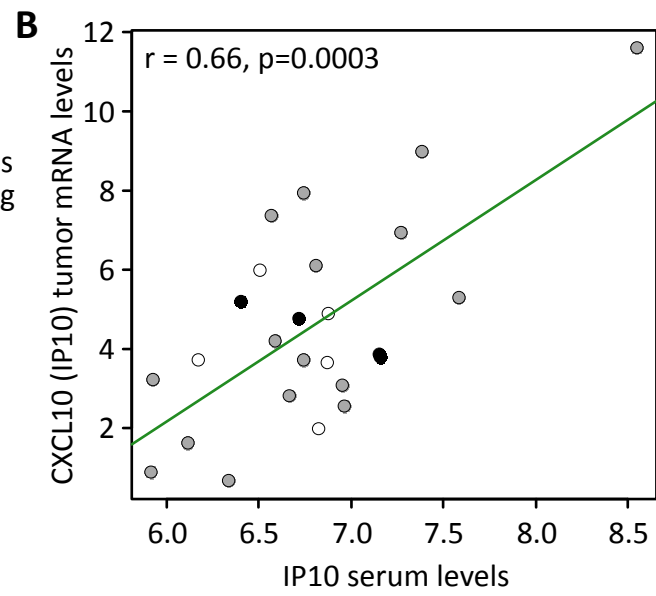
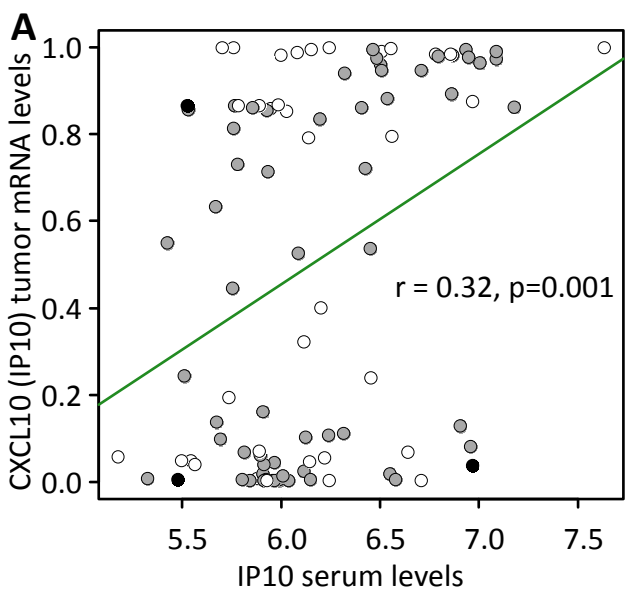
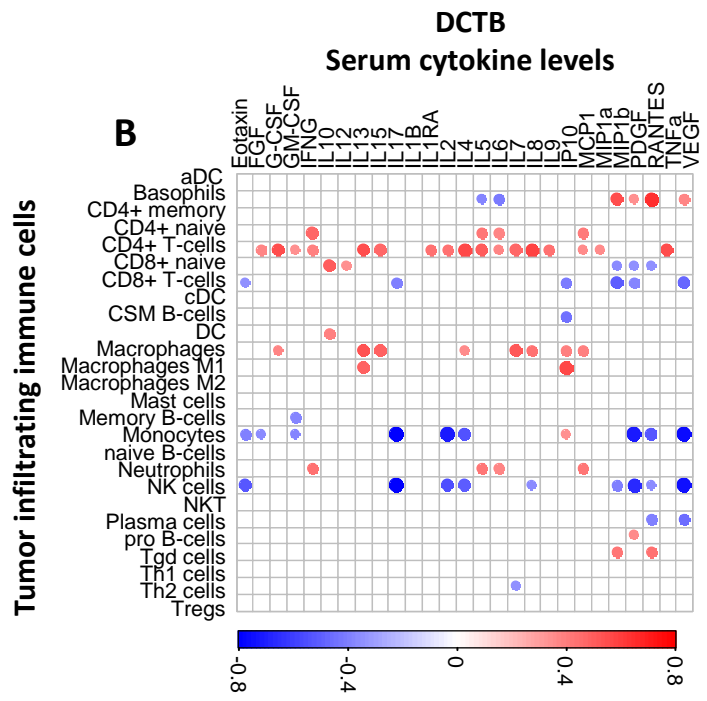
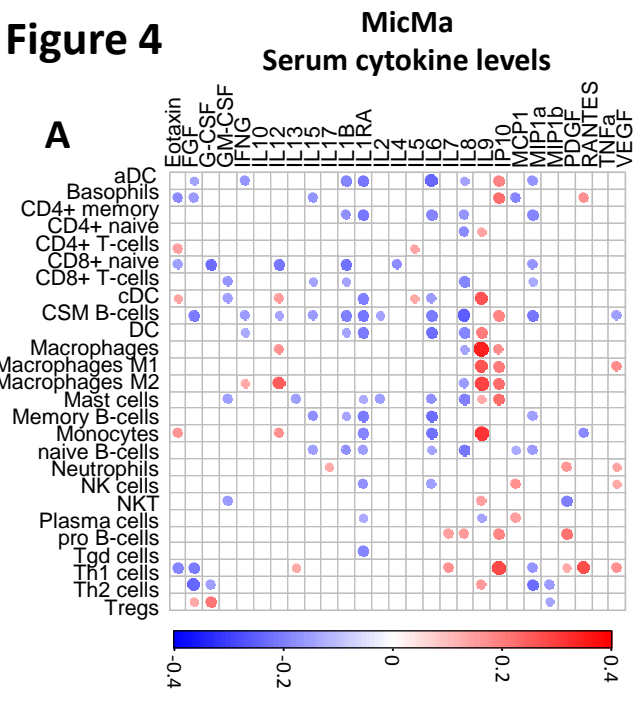
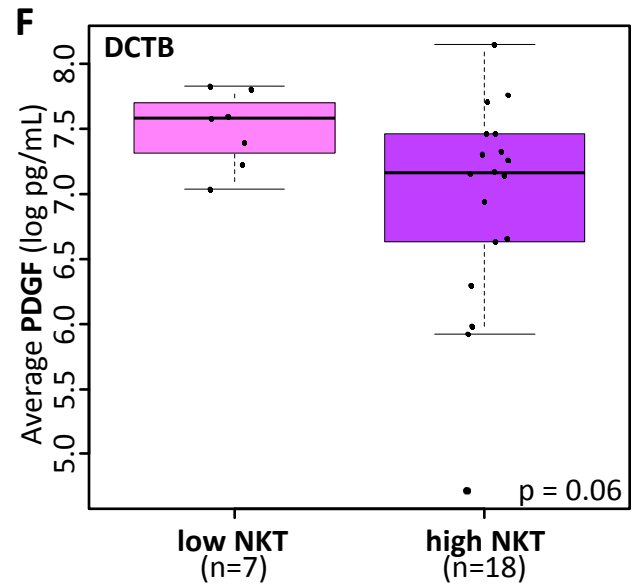
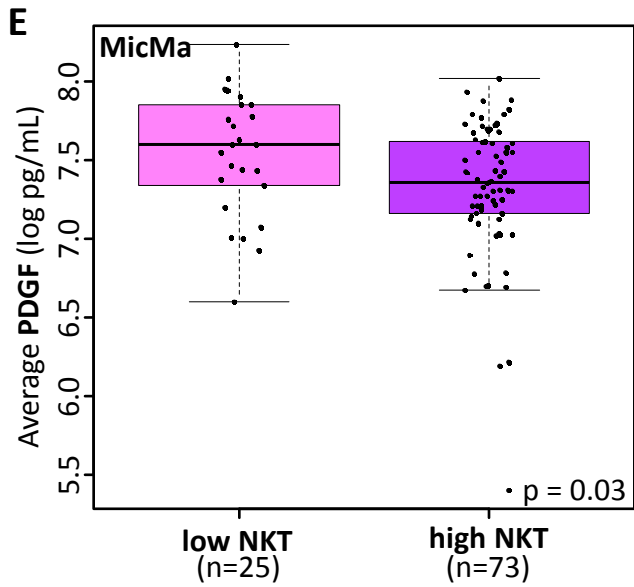
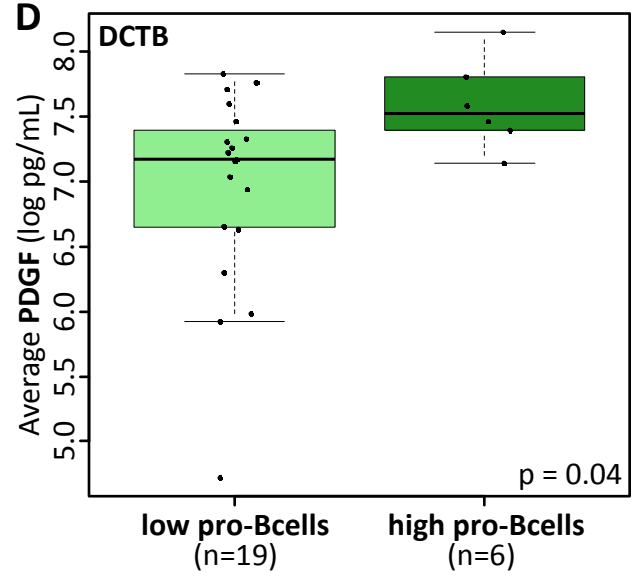
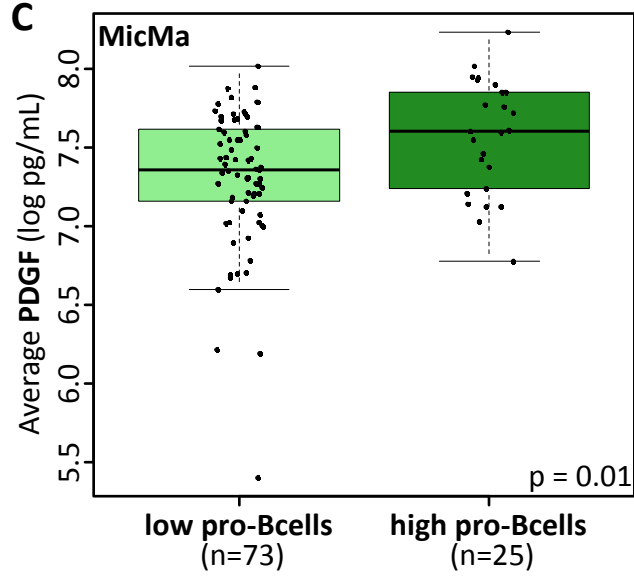


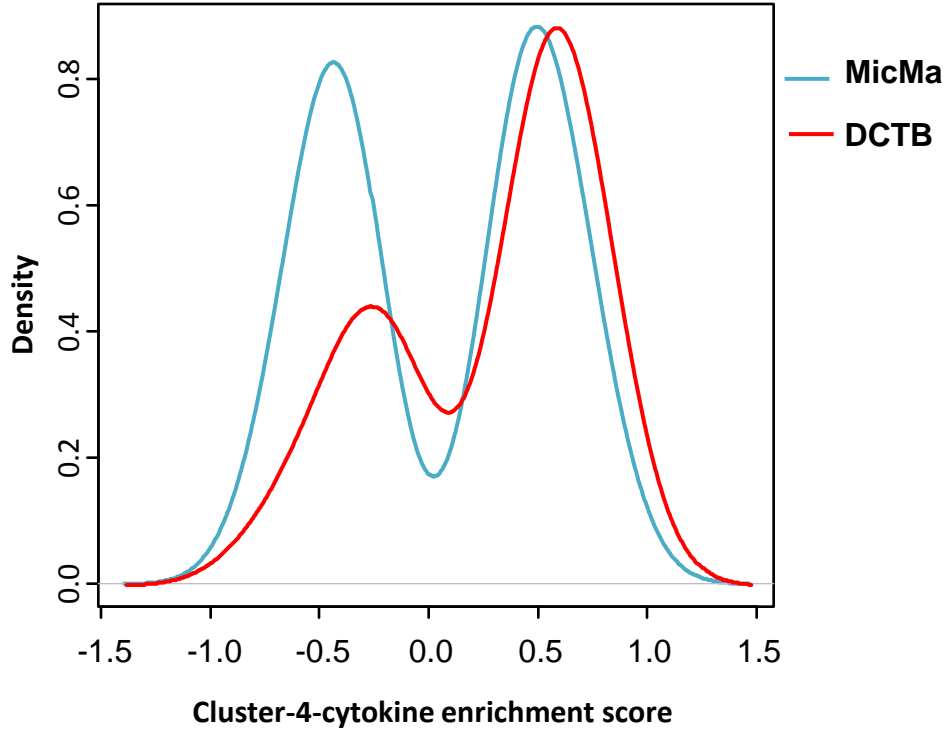
Figure 4



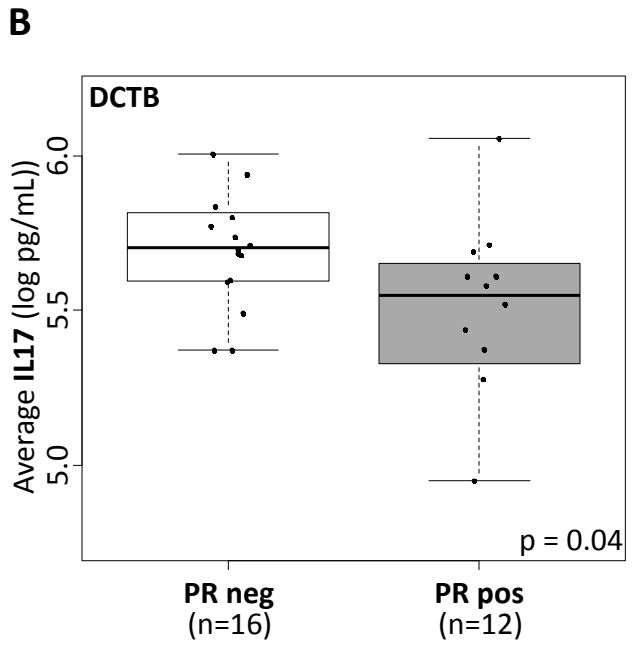
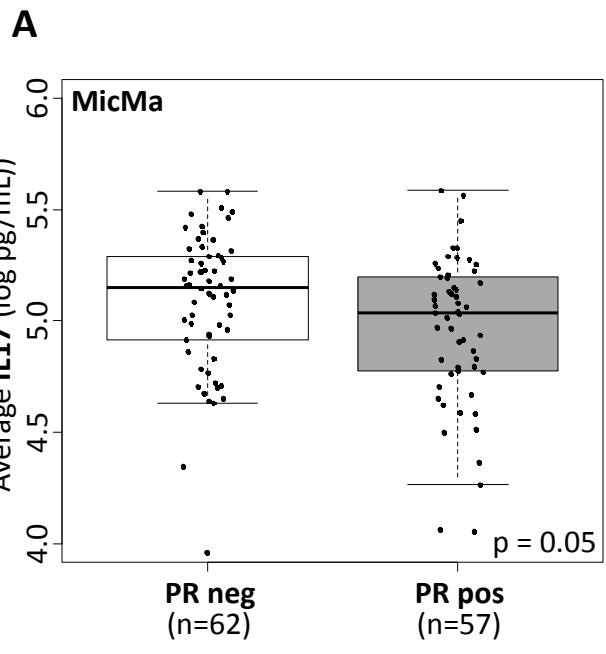
Tumor infiltrating immune cells



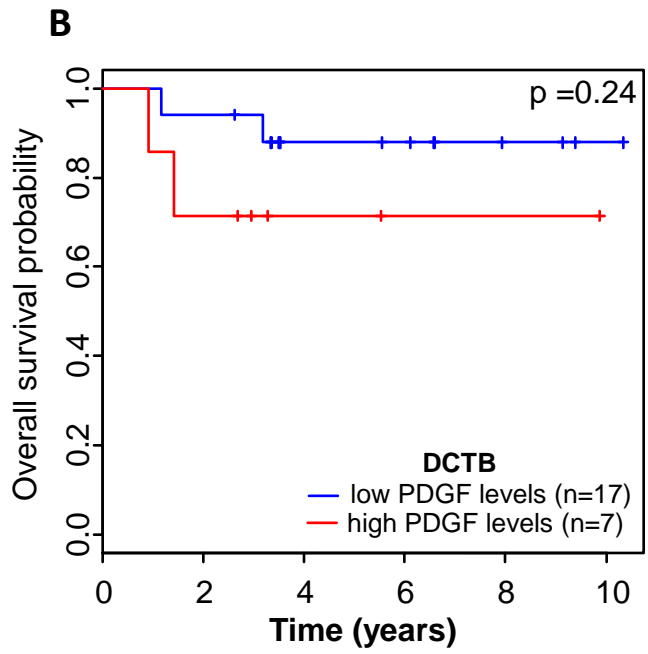
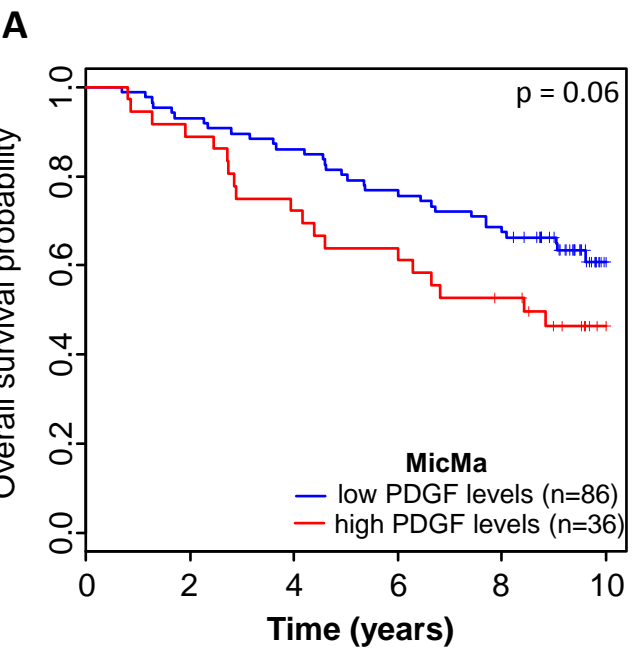
Supplementary Figure 1



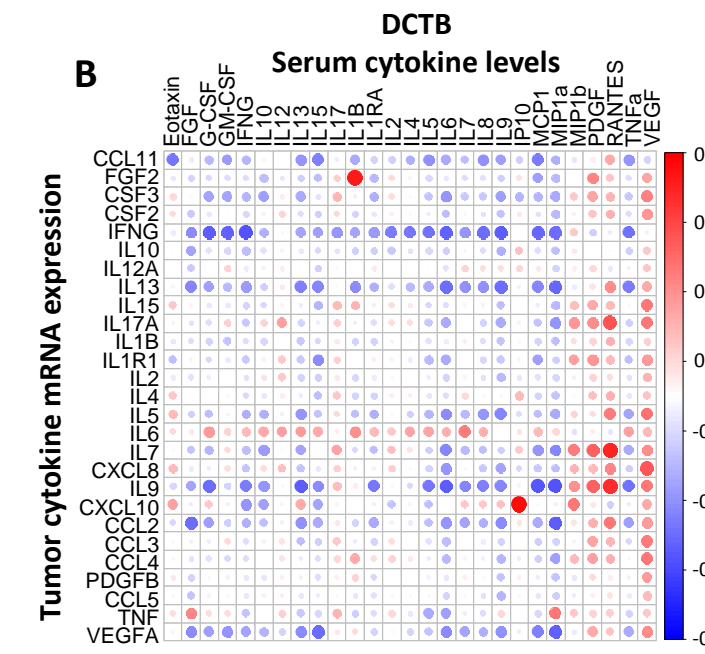
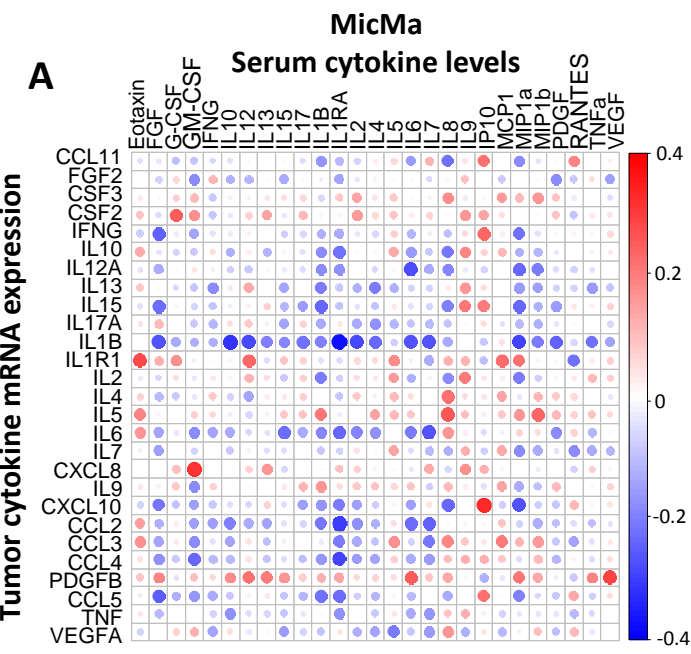
Supplementary Figure 2



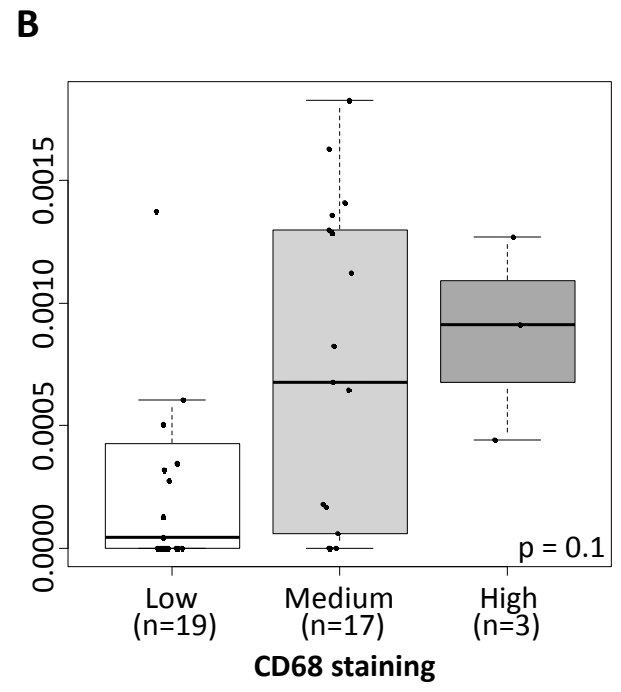
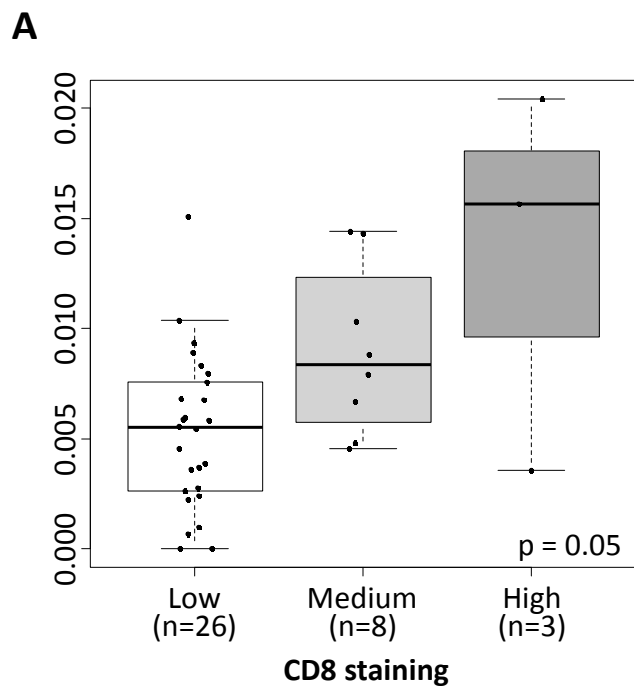
Supplementary Figure 3



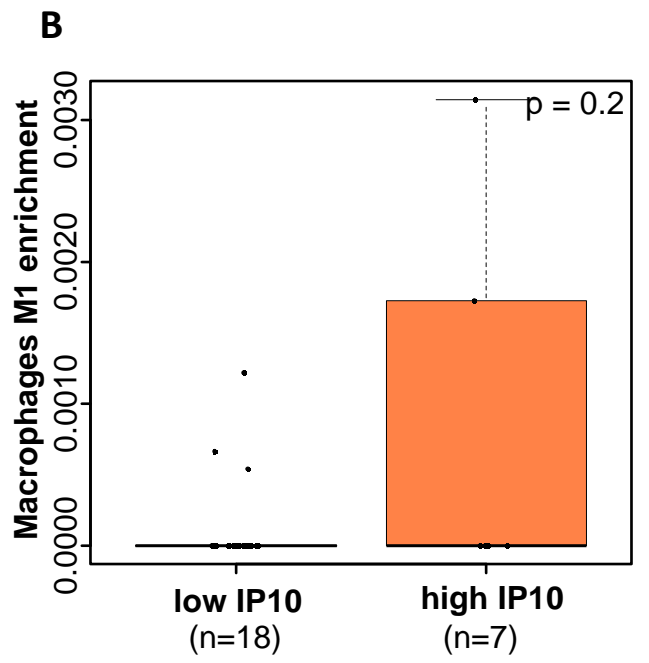
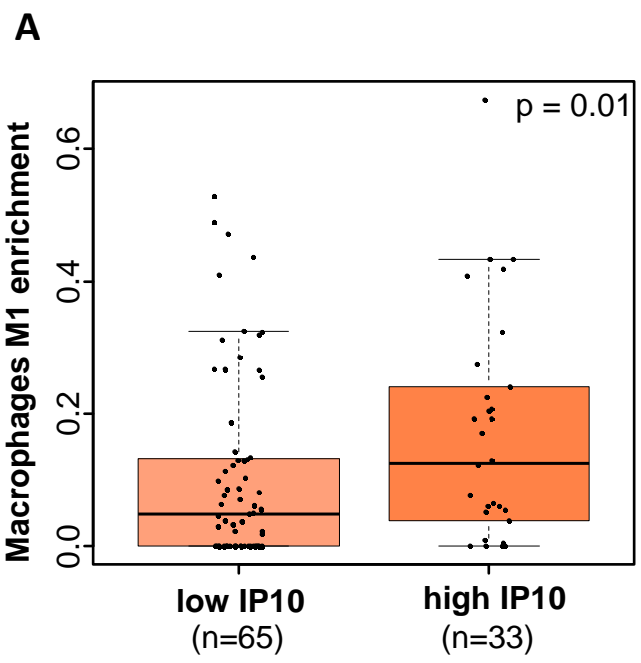
Supplementary Figure 4



Supplementary Figure 5



Supplementary Figure 6



Supplementary Table 1: Cytokines levels according to estrogen receptor (ER) status

	MicMa cohort			Median ER neg (n=8)
	Median ER neg (n=49)	Median ER pos (n=74)	MWU p value	
IL1B	1,02	0,97	0,65	1,59
IL1RA	2,91	2,25	0,68	4,80
IL2	3,30	3,20	0,62	3,37
IL4	1,75	1,70	0,17	2,16
IL5	2,08	1,99	0,03	2,61
IL6	1,93	2,07	0,67	2,49
IL7	2,32	2,16	0,30	2,58
IL8	3,74	3,64	0,18	3,85
IL9	2,42	2,57	0,82	2,98
IL10	2,42	2,34	0,60	2,55
IL12	2,26	1,97	0,49	3,45
IL13	1,77	1,62	0,22	2,36
IL15	2,95	2,76	1,00	0,00
IL17	5,19	5,03	0,02	5,77
Eotaxin	4,40	4,51	0,18	5,08
FGF	4,00	3,97	0,45	4,52
G_CSF	3,58	3,58	0,88	4,50
GM_CSF	3,99	3,92	0,53	3,15
IFNG	3,76	3,72	0,74	4,70
IP10	6,16	6,07	0,55	6,85
MCP1	4,85	4,77	0,19	3,93
MIP1a	1,80	1,79	0,79	2,20
PDGF	7,52	7,34	0,07	7,39
MIP1b	5,58	5,75	0,37	5,59
TNFa	3,63	3,60	0,46	9,33
RANTES	9,97	10,21	0,22	4,42
VEGF	4,48	4,37	0,39	4,46

DCTB cohort	
Median ER pos (n=16)	MWU p value
1,63	0,65
4,80	0,71
3,31	0,46
2,15	0,79
2,64	0,48
2,52	0,98
2,61	0,93
3,83	0,81
2,74	0,35
2,71	0,34
3,42	0,90
2,44	0,37
0,00	1,00
5,60	0,03
4,87	0,17
4,30	0,09
4,46	1,00
3,10	0,88
4,64	0,85
6,74	0,93
3,88	0,67
2,18	0,36
7,24	0,32
5,48	0,65
9,21	0,48
4,31	0,88
4,15	0,15

Supplementary Table 2: Cytokines levels according to epidermal growth factor receptor (HER2) st

	MicMa cohort			Median Her2 neg (n=8)
	Median Her2 neg (n=97)	Median Her2 pos (n=19)	MWU p value	
IL1B	0,99	0,96	0,39	1,58
IL1RA	2,77	2,56	0,60	4,79
IL2	3,26	3,29	0,79	3,22
IL4	1,70	1,77	0,19	2,08
IL5	2,01	2,03	0,92	2,57
IL6	2,02	1,93	0,75	2,49
IL7	2,17	2,36	0,30	2,56
IL8	3,74	3,64	0,47	3,83
IL9	2,53	2,55	0,69	2,74
IL10	2,37	2,27	0,97	2,68
IL12	2,05	2,01	0,97	3,52
IL13	1,64	1,57	0,59	2,45
IL15	2,73	3,20	0,14	0,00
IL17	5,10	5,09	0,54	5,41
Eotaxin	4,49	4,45	0,84	4,99
FGF	3,98	3,92	0,49	4,24
G_CSF	3,60	3,50	0,05	4,39
GM_CSF	3,95	3,93	0,78	2,87
IFNG	3,74	3,72	1,00	4,64
IP10	6,12	6,18	0,69	6,73
MCP1	4,81	4,83	0,46	3,89
MIP1a	1,81	1,69	0,09	2,11
PDGF	7,38	7,56	0,06	6,99
MIP1b	5,74	5,69	0,67	5,55
TNFa	3,61	3,70	0,84	9,23
RANTES	10,07	10,32	0,26	4,32
VEGF	4,38	4,56	0,24	4,37

tatus

DCTB cohort	
Median Her2 pos (n=20)	MWU p value
1,61	0,56
4,80	0,72
3,38	0,03
2,17	0,15
2,62	0,63
2,54	0,39
2,57	0,52
3,86	0,40
2,99	0,08
2,71	0,92
3,45	0,92
2,38	0,74
0,00	0,20
5,70	0,01
4,96	0,98
4,50	0,03
4,53	0,24
3,26	0,03
4,67	0,48
6,85	0,33
3,95	0,58
2,25	0,06
7,43	0,05
5,55	0,98
9,32	0,56
4,32	0,16
4,36	0,49

Supplementary Table 3: Cytokines levels according to size

	MicMa cohort		
	Median Size =< 2 cm(n=56)	Median Size > 2 cm(n=54)	MWU p value
IL1B	0,97	0,98	0,58
IL1RA	2,94	2,58	0,77
IL2	3,25	3,28	0,57
IL4	1,69	1,73	0,25
IL5	1,97	2,03	0,26
IL6	1,91	2,04	0,84
IL7	2,19	2,18	0,48
IL8	3,70	3,65	0,90
IL9	2,44	2,59	0,12
IL10	2,36	2,35	0,52
IL12	2,00	2,10	0,57
IL13	1,76	1,59	0,31
IL15	2,80	2,94	0,88
IL17	5,02	5,12	0,09
Eotaxin	4,49	4,46	0,57
FGF	3,96	4,02	0,52
G_CSF	3,59	3,55	0,66
GM_CSF	3,92	4,09	0,62
IFNG	3,73	3,76	0,17
IP10	5,96	6,22	0,05
MCP1	4,83	4,74	0,49
MIP1a	1,80	1,79	0,74
PDGF	7,28	7,44	0,04
MIP1b	5,73	5,71	0,57
TNFa	3,58	3,66	0,12
RANTES	10,00	10,24	0,16
VEGF	4,26	4,46	0,11

DCTB cohort		
Median Size =< 2 cm(n=5)	Median Size > 2 cm(n=23)	MWU p value
1,56	1,68	0,08
4,77	4,82	0,44
3,23	3,36	0,11
1,97	2,17	0,03
2,51	2,64	0,13
2,36	2,53	0,16
2,46	2,62	0,19
3,60	3,89	0,02
2,51	2,92	0,02
2,70	2,72	0,76
3,18	3,57	0,10
2,25	2,43	0,76
0,00	0,00	0,35
5,52	5,68	0,11
4,71	5,00	0,22
4,11	4,33	0,11
4,44	4,51	0,28
2,83	3,10	0,32
4,60	4,70	0,15
6,74	6,83	0,29
3,84	3,97	0,11
2,17	2,18	0,67
7,02	7,40	0,04
5,47	5,62	0,35
9,31	9,31	0,72
4,31	4,41	0,51
4,27	4,40	0,44

Supplementary Table 4: Statistical analysis of the correlation between the cytokine serum level and their

	MicMa		DCTB	
	Perarson r	Pearson p value	Perarson r	Pearson p value
Eotaxin	-0,05	0,65	-0,38	0,06
FGF	-0,07	0,51	-0,12	0,55
G_CSF	0,07	0,48	-0,24	0,24
GM_CSF	0,18	0,08	-0,01	0,98
IFNG	-0,04	0,66	-0,47	0,02
IL10	-0,13	0,21	-0,08	0,70
IL12	-0,09	0,40	0,05	0,80
IL13	0,00	0,97	-0,34	0,10
IL15	-0,12	0,26	-0,20	0,34
IL17	0,07	0,51	0,14	0,51
IL1B	-0,20	0,05	-0,12	0,57
IL1RA	-0,05	0,63	0,04	0,84
IL2	0,05	0,62	0,02	0,94
IL4	0,03	0,78	0,05	0,83
IL5	0,10	0,31	-0,20	0,33
IL6	-0,20	0,04	0,22	0,29
IL7	-0,11	0,27	-0,19	0,36
IL8	-0,06	0,55	-0,15	0,49
IL9	0,03	0,76	-0,33	0,11
IP10	0,33	0,001	0,67	0,0003
MCP1	0,09	0,36	-0,24	0,26
MIP1a	0,12	0,25	-0,12	0,56
MIP1b	0,11	0,28	0,19	0,37
PDGF	-0,03	0,78	0,10	0,63
RANTES	0,14	0,18	0,08	0,72
TNFa	-0,06	0,57	-0,13	0,55
VEGF	0,00	0,97	0,31	0,13

corresponding mRNA levels in the tumor site

Supplementary Table 5: Immune cell types scored using Xcell and the associated scores

Full name	Cell type	MicMa002	MicMa003
Activated dendritic cells	aDC	5,03E-17	3,49E-02
Basophils	Basophils	1,10E-01	1,12E-17
CD4+ memory T-cells	CD4+ memory T-cells	5,60E-18	6,35E-02
CD4+ naive T-cells	CD4+ naive T-cells	0,00E+00	0,00E+00
CD4+ T-cells	CD4+ T-cells	0,00E+00	3,20E-02
CD8+ naive T-cells	CD8+ naive T-cells	0,00E+00	9,76E-02
CD8+ T-cells	CD8+ T-cells	8,25E-02	5,06E-02
Conventional dendritic cells	cDC	1,84E-01	7,60E-03
Class-switched memory B-cells	CSM B-cells	2,56E-18	0,00E+00
Dendritic cells	DC	0,00E+00	1,29E-17
Macrophages	Macrophages	0,00E+00	8,88E-02
Macrophages M1	Macrophages M1	0,00E+00	5,60E-02
Macrophages M2	Macrophages M2	0,00E+00	0,00E+00
Mast cells	Mast cells	5,20E-19	9,50E-02
Memory B-cells	Memory B-cells	0,00E+00	0,00E+00
Monocytes	Monocytes	2,14E-17	7,76E-04
naive B-cells	naive B-cells	0,00E+00	3,99E-18
Neutrophils	Neutrophils	0,00E+00	0,00E+00
NK cells	NK cells	5,32E-17	2,74E-02
Natural killer T-cells	NKT	2,81E-01	0,00E+00
Plasma cells	Plasma cells	8,23E-02	9,18E-02
pro B-cells	pro B-cells	2,42E-17	3,69E-02
Gamma delta T-cells	Tgd cells	2,34E-17	6,01E-02
Type 1 T-helper cells	Th1 cells	0,00E+00	1,19E-17
Type 2 T-helper cells	Th2 cells	1,01E-02	5,95E-02
Regulatory T-cells	Tregs	0,00E+00	4,82E-02

MicMa019	MicMa020	MicMa022	MicMa023	MicMa024	MicMa031	MicMa034	MicMa042
8,05E-01	0,00E+00	8,54E-02	0,00E+00	6,11E-19	8,21E-02	9,21E-02	2,61E-01
3,59E-01	0,00E+00	3,45E-17	4,41E-01	2,38E-01	6,86E-01	8,28E-01	7,48E-01
3,99E-01	2,20E-02	9,92E-02	1,71E-18	6,49E-02	8,09E-03	1,42E-01	6,30E-02
0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,37E-18	0,00E+00	6,60E-17	0,00E+00
8,64E-02	0,00E+00	3,15E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
1,28E-01	1,60E-02	1,57E-01	0,00E+00	1,44E-01	4,56E-02	2,28E-01	3,53E-03
4,77E-01	4,22E-02	2,02E-17	0,00E+00	0,00E+00	6,02E-02	5,07E-01	4,73E-02
6,66E-01	2,64E-01	1,28E-02	4,75E-01	3,86E-01	4,94E-01	1,39E+00	6,50E-01
1,70E-01	2,82E-17	2,40E-02	3,88E-17	6,70E-02	5,03E-18	6,07E-20	1,27E-17
1,13E-01	6,55E-03	0,00E+00	0,00E+00	2,80E-18	3,30E-03	1,15E-01	1,35E-01
3,97E-01	1,16E-01	2,64E-01	5,51E-02	1,46E-01	5,32E-02	0,00E+00	0,00E+00
2,07E-01	3,65E-02	9,83E-02	2,27E-02	3,88E-02	2,90E-02	0,00E+00	1,22E-18
1,72E-01	9,22E-02	1,46E-01	4,12E-02	3,92E-02	0,00E+00	1,96E-02	0,00E+00
6,97E-02	2,15E-20	1,40E-02	2,88E-02	1,52E-01	1,82E-02	0,00E+00	2,56E-02
2,46E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,39E-02	0,00E+00	7,08E-02
1,59E-01	1,27E-17	7,68E-03	4,95E-18	0,00E+00	6,55E-02	1,32E-17	0,00E+00
1,76E-01	1,13E-17	0,00E+00	5,17E-19	5,52E-18	4,66E-02	1,18E-02	1,65E-01
0,00E+00	1,59E-19	0,00E+00	1,28E-02	8,29E-03	2,55E-02	4,63E-19	0,00E+00
2,01E-02	1,89E-17	7,87E-18	8,96E-17	0,00E+00	1,67E-17	1,18E-16	0,00E+00
5,43E-02	1,25E-01	5,65E-18	7,26E-01	0,00E+00	4,33E-18	3,63E-01	0,00E+00
3,94E-01	3,98E-01	1,20E-01	2,61E-02	6,04E-02	1,36E-01	2,96E-01	1,89E-01
1,97E-01	1,23E-18	4,06E-02	1,80E-17	0,00E+00	1,14E-01	2,94E-03	1,12E-01
7,33E-02	0,00E+00	0,00E+00	2,23E-16	0,00E+00	2,08E-17	0,00E+00	9,83E-18
2,10E-01	0,00E+00	9,79E-02	4,55E-01	6,32E-02	2,44E-01	1,86E-01	6,78E-01
1,06E+00	8,43E-02	1,23E+00	0,00E+00	4,84E-01	5,31E-01	5,99E-01	4,77E-01
1,01E-17	0,00E+00	7,60E-18	3,77E-17	4,60E-18	1,87E-17	3,93E-18	1,67E-18

MicMa044	MicMa053	MicMa057	MicMa064	MicMa065	MicMa067	MicMa068	MicMa069
6,11E-01	1,06E+00	4,77E-01	6,29E-01	6,32E-02	8,83E-02	0,00E+00	0,00E+00
5,14E-02	3,10E-01	6,19E-01	4,07E-01	6,42E-01	4,72E-01	1,63E-01	1,28E-01
3,52E-01	2,25E-01	4,41E-01	5,74E-01	1,07E-18	5,07E-02	5,64E-02	6,97E-04
1,33E-02	0,00E+00	1,70E-02	5,55E-02	1,37E-18	0,00E+00	0,00E+00	3,04E-19
2,04E-02	1,80E-20	3,56E-02	3,78E-02	1,30E-17	0,00E+00	9,25E-18	1,32E-18
4,93E-02	7,50E-02	8,02E-02	8,29E-02	2,73E-02	5,37E-18	1,40E-02	8,52E-02
4,00E-01	3,15E-02	3,62E-01	4,93E-01	6,02E-18	1,50E-17	7,20E-02	1,61E-01
1,87E+00	4,17E-01	4,39E-01	1,38E+00	3,28E-18	3,84E-01	0,00E+00	7,15E-02
3,93E-02	1,15E-18	9,88E-02	7,09E-18	0,00E+00	2,34E-19	0,00E+00	6,94E-02
2,77E-01	1,28E-01	1,26E-01	2,71E-01	1,51E-18	1,36E-02	0,00E+00	0,00E+00
1,06E-01	3,48E-01	1,38E-03	5,88E-02	1,13E-01	9,74E-02	8,19E-19	8,83E-02
5,20E-02	2,75E-01	8,47E-02	3,20E-02	6,19E-02	1,29E-01	0,00E+00	6,25E-19
6,83E-02	3,36E-03	0,00E+00	1,36E-01	1,12E-01	2,83E-02	3,72E-18	3,37E-02
2,72E-02	1,30E-02	1,89E-02	3,96E-02	5,16E-02	0,00E+00	4,17E-02	1,70E-01
9,45E-02	0,00E+00	1,37E-01	7,48E-03	0,00E+00	0,00E+00	2,06E-17	0,00E+00
3,92E-01	1,34E-01	7,01E-19	2,13E-01	0,00E+00	0,00E+00	2,38E-17	0,00E+00
1,50E-01	1,01E-02	2,29E-01	1,09E-01	0,00E+00	1,01E-01	0,00E+00	9,01E-03
1,04E-02	3,12E-02	2,35E-18	0,00E+00	1,16E-17	4,55E-03	0,00E+00	1,72E-03
5,88E-02	1,82E-02	5,28E-17	0,00E+00	2,51E-16	1,70E-17	3,97E-17	1,12E-17
0,00E+00	1,39E-20	2,05E-02	3,10E-02	1,23E-01	2,56E-01	0,00E+00	3,26E-01
1,28E-01	2,53E-01	3,56E-01	1,94E-01	3,10E-01	4,46E-02	1,19E-01	1,92E-01
4,48E-18	8,63E-02	1,57E-01	4,80E-03	0,00E+00	5,52E-02	2,36E-17	0,00E+00
1,48E-02	0,00E+00	0,00E+00	0,00E+00	8,68E-18	3,92E-17	0,00E+00	0,00E+00
2,43E-17	7,35E-01	3,73E-01	1,83E-18	1,17E-01	1,12E+00	1,12E-01	6,48E-18
2,36E-01	7,58E-01	3,52E-01	8,49E-01	0,00E+00	9,36E-01	3,30E-01	1,34E-01
0,00E+00	2,95E-02	3,56E-02	0,00E+00	1,87E-17	1,99E-18	3,73E-18	0,00E+00

MicMa071	MicMa085	MicMa086	MicMa088	MicMa089	MicMa091	MicMa098	MicMa100
1,12E+00	7,40E-01	7,10E-01	5,16E-01	1,15E+00	1,47E+00	4,04E-01	1,21E+00
6,06E-01	6,61E-01	5,96E-02	9,48E-01	7,19E-01	7,19E-01	4,42E-01	7,19E-01
4,49E-01	3,21E-01	3,25E-01	5,57E-02	4,59E-01	6,17E-01	0,00E+00	2,42E-01
0,00E+00	1,01E-17	9,46E-21	6,53E-18	8,37E-19	0,00E+00	1,56E-17	1,64E-19
0,00E+00	1,62E-18	0,00E+00	2,34E-17	2,13E-02	3,73E-03	3,08E-17	3,24E-19
2,25E-01	1,67E-01	7,54E-02	8,04E-03	6,15E-02	2,22E-01	1,88E-01	4,92E-19
5,33E-01	8,13E-01	7,02E-01	8,01E-03	5,38E-01	5,13E-01	2,86E-02	4,17E-01
1,90E+00	3,00E-01	1,62E+00	1,24E-01	1,83E+00	9,31E-01	1,33E-01	7,54E-01
1,13E-02	1,40E-01	0,00E+00	0,00E+00	8,37E-02	2,57E-01	3,58E-02	1,19E-01
2,80E-01	6,85E-02	2,15E-01	4,29E-18	2,97E-01	1,61E-01	3,34E-02	2,10E-01
4,30E-01	2,03E-01	3,60E-01	5,94E-01	3,59E-01	4,66E-01	1,09E-01	3,20E-01
4,19E-01	1,86E-01	1,29E-01	4,88E-01	2,68E-01	5,28E-01	6,06E-02	3,23E-01
2,21E-01	8,14E-02	2,38E-01	3,89E-01	1,92E-01	1,23E-01	9,85E-02	2,36E-01
2,95E-02	5,73E-02	1,52E-01	3,36E-02	2,75E-02	1,46E-01	1,54E-02	1,39E-01
4,50E-01	6,72E-02	3,41E-18	0,00E+00	2,12E-01	3,66E-01	4,72E-18	2,68E-02
2,02E-01	3,78E-17	2,09E-01	1,32E-01	3,19E-01	2,46E-01	0,00E+00	0,00E+00
2,55E-01	1,32E-01	0,00E+00	7,02E-02	2,52E-01	1,66E-01	2,96E-03	9,19E-02
0,00E+00	3,14E-18	1,31E-18	2,26E-18	8,52E-20	0,00E+00	0,00E+00	0,00E+00
0,00E+00	8,73E-02	3,37E-02	0,00E+00	8,12E-02	2,53E-01	9,10E-17	5,12E-17
6,01E-01	5,09E-02	6,34E-01	2,51E-01	4,66E-01	3,51E-02	2,65E-01	8,49E-02
4,37E-01	3,78E-01	1,07E-01	4,82E-02	2,66E-01	5,03E-01	1,05E-01	2,45E-01
1,12E-01	2,29E-01	0,00E+00	8,95E-02	7,28E-17	4,62E-01	0,00E+00	0,00E+00
1,37E-01	2,44E-02	4,80E-19	1,76E-04	7,39E-02	2,58E-02	4,20E-17	0,00E+00
3,68E-01	1,54E+00	6,16E-02	8,67E-01	2,15E-01	1,19E+00	6,85E-01	1,40E+00
1,08E+00	4,90E-01	3,14E-01	6,43E-01	6,96E-01	9,22E-01	0,00E+00	1,02E-01
0,00E+00	0,00E+00	0,00E+00	6,50E-17	2,52E-02	0,00E+00	0,00E+00	1,81E-18

MicMa101	MicMa106	MicMa107	MicMa112	MicMa119	MicMa122	MicMa132	MicMa139
0,00E+00	0,00E+00	1,03E-03	0,00E+00	1,05E+00	0,00E+00	8,05E-01	2,88E-01
2,78E-01	5,18E-01	5,52E-01	3,11E-01	3,82E-01	5,25E-01	4,88E-01	7,37E-01
2,23E-19	6,77E-02	5,64E-02	2,12E-02	3,29E-01	0,00E+00	2,44E-01	6,36E-01
2,21E-18	0,00E+00	3,25E-18	5,67E-18	8,89E-02	0,00E+00	3,37E-17	0,00E+00
6,90E-18	0,00E+00	3,94E-18	1,61E-18	0,00E+00	0,00E+00	1,66E-17	2,31E-02
6,20E-02	2,14E-01	7,14E-02	1,33E-01	8,91E-03	1,59E-02	5,08E-02	2,68E-01
1,52E-19	2,85E-01	0,00E+00	1,63E-02	8,69E-01	5,60E-19	8,09E-01	6,60E-01
1,44E-01	3,92E-01	2,48E-02	5,88E-02	2,17E+00	1,00E-01	5,88E-01	6,30E-01
0,00E+00	1,15E-01	8,15E-04	1,37E-02	1,30E-01	0,00E+00	1,64E-01	2,77E-01
3,84E-18	1,81E-18	0,00E+00	0,00E+00	3,76E-01	0,00E+00	9,79E-02	3,83E-02
1,36E-03	1,01E-01	3,95E-03	0,00E+00	2,36E-01	3,13E-02	5,40E-01	1,29E-01
1,66E-19	3,79E-02	0,00E+00	0,00E+00	2,05E-01	0,00E+00	4,33E-01	6,03E-02
1,10E-19	1,19E-01	1,69E-02	1,16E-02	1,78E-01	1,48E-02	3,64E-01	1,09E-01
5,60E-02	8,76E-02	8,84E-02	1,21E-02	1,08E-01	2,99E-02	2,03E-01	2,12E-01
3,64E-18	1,32E-02	0,00E+00	0,00E+00	2,05E-01	0,00E+00	1,21E-01	2,04E-01
3,88E-18	4,81E-22	9,47E-17	0,00E+00	3,32E-01	3,37E-17	1,76E-01	0,00E+00
0,00E+00	3,64E-02	2,42E-02	3,34E-19	2,29E-01	0,00E+00	1,50E-01	2,49E-01
0,00E+00	0,00E+00	1,66E-18	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
6,02E-18	8,01E-18	2,58E-17	0,00E+00	1,39E-01	5,57E-17	6,31E-03	6,84E-19
1,88E-18	1,29E-01	0,00E+00	2,45E-20	3,59E-01	4,31E-01	4,67E-01	1,09E-01
3,15E-02	1,53E-01	6,21E-02	5,76E-02	4,13E-01	8,14E-02	6,15E-01	6,15E-01
0,00E+00	0,00E+00	9,56E-02	1,48E-01	2,11E-17	0,00E+00	1,61E-01	2,23E-01
6,47E-19	0,00E+00	0,00E+00	0,00E+00	1,32E-03	2,54E-16	0,00E+00	0,00E+00
4,34E-01	2,54E-01	7,17E-01	3,56E-01	1,99E-01	3,23E-01	1,00E+00	3,96E-01
1,36E-01	3,81E-18	2,91E-01	5,42E-01	7,07E-01	5,21E-02	3,74E-01	6,46E-01
0,00E+00	7,62E-18	7,66E-19	6,63E-19	1,06E-17	0,00E+00	6,97E-18	0,00E+00

MicMa146	MicMa148	MicMa150	MicMa157	MicMa163	MicMa167	MicMa185	MicMa190
6,26E-01	1,09E+00	1,75E-03	2,43E-02	1,19E+00	1,05E+00	8,60E-01	9,80E-01
3,06E-01	9,72E-01	0,00E+00	8,97E-02	6,58E-01	4,24E-01	7,52E-01	6,60E-01
9,06E-03	6,74E-01	0,00E+00	9,95E-02	5,85E-01	7,65E-02	1,28E-01	2,32E-01
0,00E+00	1,36E-17	1,97E-17	0,00E+00	1,13E-01	3,70E-18	0,00E+00	0,00E+00
3,80E-18	1,93E-19	0,00E+00	0,00E+00	5,81E-03	0,00E+00	0,00E+00	2,46E-18
5,80E-02	1,09E-01	2,86E-01	2,64E-02	3,82E-01	2,01E-02	1,02E-01	9,87E-02
0,00E+00	3,06E-01	2,13E-01	0,00E+00	7,39E-01	6,84E-01	0,00E+00	7,72E-01
3,20E-01	2,68E-01	7,84E-02	5,49E-01	1,73E+00	8,82E-01	1,27E-01	1,19E+00
8,90E-18	1,27E-17	1,59E-02	0,00E+00	1,62E-01	9,59E-02	2,95E-18	2,64E-01
1,87E-02	8,76E-02	0,00E+00	1,15E-02	2,30E-01	2,79E-01	3,91E-02	2,83E-01
5,74E-01	2,42E-01	1,65E-02	0,00E+00	2,52E-01	0,00E+00	3,02E-01	6,80E-02
4,33E-01	2,41E-01	0,00E+00	5,30E-04	2,24E-01	7,68E-02	4,08E-01	1,22E-01
3,28E-01	7,35E-02	8,78E-02	2,54E-18	1,68E-21	9,72E-03	1,22E-02	2,53E-02
1,03E-02	8,12E-02	1,16E-19	3,48E-02	5,35E-02	1,85E-18	1,37E-02	4,29E-02
0,00E+00	5,32E-02	0,00E+00	0,00E+00	2,29E-01	2,16E-02	0,00E+00	3,48E-01
1,45E-01	0,00E+00	3,65E-02	2,01E-01	1,83E-02	5,48E-03	5,53E-18	1,05E-01
4,90E-19	9,19E-02	3,99E-03	0,00E+00	1,55E-01	2,09E-01	4,09E-02	1,98E-01
0,00E+00	0,00E+00	4,83E-19	2,40E-02	3,53E-18	0,00E+00	8,25E-19	2,53E-17
6,12E-19	9,50E-18	4,48E-18	0,00E+00	1,92E-01	0,00E+00	0,00E+00	0,00E+00
2,73E-01	1,58E-03	3,03E-01	0,00E+00	2,40E-01	3,49E-01	4,54E-01	4,51E-01
4,72E-02	5,07E-01	5,10E-02	6,88E-02	1,69E-01	2,35E-01	2,93E-01	5,17E-01
0,00E+00	1,92E-01	4,11E-02	0,00E+00	1,89E-02	2,20E-02	8,17E-02	1,39E-01
0,00E+00	1,44E-02	1,50E-18	2,30E-18	1,64E-01	2,28E-17	9,34E-17	4,39E-03
1,49E-01	1,42E+00	5,35E-18	5,08E-01	5,81E-01	6,18E-01	1,61E+00	1,24E+00
5,96E-01	7,63E-01	2,34E-01	3,57E-01	1,47E-01	4,43E-01	7,12E-01	1,24E-01
9,30E-18	0,00E+00	9,38E-18	0,00E+00	6,06E-03	4,86E-02	0,00E+00	6,49E-17

MicMa197	MicMa201	MicMa209	MicMa210	MicMa218	MicMa220	MicMa221	MicMa222
2,93E-01	4,98E-18	1,20E+00	4,65E-02	1,97E-01	7,88E-01	8,00E-01	9,98E-01
3,00E-01	4,09E-01	9,58E-01	7,73E-01	2,99E-01	2,75E-01	3,77E-01	2,90E-01
0,00E+00	5,37E-02	5,17E-01	3,35E-02	6,96E-02	4,70E-01	6,54E-01	7,49E-01
6,14E-18	0,00E+00	2,32E-02	2,67E-17	0,00E+00	2,03E-18	3,00E-17	2,36E-18
0,00E+00	0,00E+00	4,52E-02	3,93E-17	1,46E-19	3,77E-02	0,00E+00	0,00E+00
0,00E+00	8,99E-02	1,84E-01	1,18E-01	8,62E-02	2,70E-01	2,02E-01	1,12E-01
0,00E+00	8,50E-20	9,50E-01	0,00E+00	1,01E-01	4,35E-01	3,60E-01	9,51E-01
4,22E-01	4,06E-01	1,98E+00	2,14E-01	8,52E-01	8,83E-01	1,50E+00	1,45E+00
0,00E+00	0,00E+00	2,54E-01	8,60E-02	0,00E+00	2,14E-01	1,04E-01	2,16E-01
1,01E-01	5,02E-21	3,29E-01	6,57E-03	9,55E-02	1,38E-01	2,04E-01	1,59E-01
1,42E-02	1,34E-02	9,43E-04	4,37E-19	1,45E-18	3,72E-01	9,07E-02	1,07E-01
4,88E-02	0,00E+00	0,00E+00	0,00E+00	4,53E-19	1,70E-01	8,70E-02	1,30E-01
1,50E-18	6,65E-02	0,00E+00	1,72E-03	0,00E+00	1,33E-01	2,33E-17	8,71E-02
0,00E+00	2,55E-02	7,92E-02	2,96E-02	1,34E-02	1,22E-01	8,74E-03	2,32E-01
2,39E-17	6,20E-17	2,32E-01	0,00E+00	8,53E-02	6,11E-03	2,63E-01	1,81E-01
0,00E+00	0,00E+00	1,26E-01	0,00E+00	3,07E-02	8,23E-02	1,73E-01	8,77E-02
0,00E+00	0,00E+00	2,62E-01	6,52E-02	8,52E-02	8,67E-02	2,11E-01	1,98E-01
1,04E-18	4,46E-19	8,36E-18	6,55E-19	4,53E-03	1,17E-02	0,00E+00	0,00E+00
7,73E-19	0,00E+00	6,49E-02	1,17E-16	3,50E-02	1,13E-01	1,97E-17	2,38E-01
1,34E-01	5,10E-02	6,67E-18	5,85E-02	6,87E-02	1,64E-01	2,03E-01	3,51E-01
1,12E-01	7,65E-02	3,43E-01	8,51E-02	9,35E-02	3,70E-01	4,14E-01	2,83E-01
2,48E-18	0,00E+00	1,76E-01	6,49E-02	5,24E-02	6,11E-02	8,96E-02	3,59E-18
4,80E-17	0,00E+00	7,82E-02	5,64E-19	5,92E-17	1,77E-01	0,00E+00	7,27E-02
2,21E-01	1,42E-01	4,33E-01	1,19E-01	2,65E-01	1,83E-01	6,47E-01	7,59E-01
3,02E-01	7,89E-02	2,77E-01	1,58E-18	5,27E-01	8,44E-01	1,14E+00	5,52E-01
3,42E-19	1,88E-18	1,44E-01	8,65E-02	5,11E-02	4,41E-18	0,00E+00	4,04E-17

MicMa223	MicMa232	MicMa234	MicMa240	MicMa245	MicMa246	MicMa247	MicMa263
2,45E-03	3,80E-01	3,86E-01	9,21E-01	0,00E+00	4,57E-01	1,27E+00	5,98E-20
1,46E-01	7,94E-01	6,51E-01	2,73E-01	1,22E-01	5,49E-01	1,95E-01	3,49E-01
4,38E-03	1,70E-01	3,82E-02	2,77E-01	1,03E-02	1,43E-01	8,50E-01	5,84E-02
0,00E+00	0,00E+00	2,71E-20	5,74E-02	1,19E-18	2,62E-17	2,94E-17	0,00E+00
5,88E-19	0,00E+00	1,69E-17	0,00E+00	2,11E-02	8,94E-20	0,00E+00	0,00E+00
2,44E-01	9,28E-02	8,92E-02	0,00E+00	1,21E-01	3,65E-02	7,56E-02	2,06E-01
1,12E-01	1,34E-02	2,35E-01	2,74E-01	8,80E-02	2,19E-02	7,18E-01	9,56E-02
1,09E-01	3,42E-01	1,49E-01	3,04E+00	3,53E-02	5,25E-01	1,91E+00	1,09E-01
5,86E-02	0,00E+00	2,21E-01	7,46E-18	7,79E-02	9,99E-02	6,73E-02	0,00E+00
1,64E-19	1,15E-01	0,00E+00	4,69E-01	0,00E+00	9,85E-02	3,93E-01	1,49E-03
7,92E-03	3,15E-03	2,32E-02	1,23E+00	7,12E-02	5,16E-02	4,49E-01	1,09E-01
0,00E+00	8,10E-02	7,61E-02	6,74E-01	8,87E-19	5,49E-02	3,22E-01	8,48E-03
0,00E+00	2,77E-18	7,61E-03	7,54E-01	3,66E-02	8,47E-19	1,67E-01	8,21E-02
2,08E-02	2,40E-02	8,55E-02	1,66E-01	5,15E-02	2,28E-03	1,95E-02	8,20E-02
2,26E-04	1,44E-02	6,01E-02	0,00E+00	1,91E-17	5,12E-03	6,62E-02	0,00E+00
4,52E-18	0,00E+00	2,03E-17	6,77E-01	9,09E-03	1,53E-02	1,68E-01	5,92E-17
3,67E-02	4,57E-02	2,02E-01	8,21E-02	1,69E-17	1,78E-02	1,74E-01	0,00E+00
0,00E+00	0,00E+00	0,00E+00	1,82E-02	8,32E-04	0,00E+00	5,44E-19	0,00E+00
4,23E-17	0,00E+00	1,04E-17	4,44E-03	1,28E-19	0,00E+00	1,68E-01	8,69E-17
1,78E-18	3,24E-20	9,46E-02	4,32E-01	2,53E-02	1,57E-01	1,34E-17	2,23E-02
2,20E-01	1,19E-01	1,67E-01	0,00E+00	2,29E-01	5,01E-02	1,99E-01	7,85E-02
1,42E-01	2,31E-01	7,54E-02	6,93E-18	0,00E+00	1,65E-02	7,05E-03	2,84E-02
2,67E-03	1,62E-03	0,00E+00	0,00E+00	2,52E-17	0,00E+00	6,01E-02	5,16E-02
2,01E-01	1,42E+00	3,73E-01	1,44E-17	6,53E-02	1,22E+00	5,75E-01	1,59E-01
6,47E-03	2,17E-01	9,94E-18	8,86E-01	0,00E+00	1,24E+00	1,61E+00	0,00E+00
4,01E-02	6,39E-02	1,63E-17	3,51E-02	3,92E-02	1,79E-18	2,17E-17	0,00E+00

MicMa264	MicMa267	MicMa269	MicMa275	MicMa277	MicMa283	MicMa285	MicMa298
0,00E+00	1,33E+00	5,03E-17	7,16E-02	0,00E+00	1,35E+00	0,00E+00	1,25E+00
3,51E-01	9,50E-01	2,48E-01	1,22E-17	0,00E+00	5,64E-01	3,18E-01	1,85E-01
9,30E-19	8,02E-01	0,00E+00	1,17E-01	5,96E-02	6,12E-01	0,00E+00	4,87E-01
3,06E-18	0,00E+00	6,68E-18	0,00E+00	0,00E+00	3,20E-02	0,00E+00	0,00E+00
0,00E+00	1,45E-18	0,00E+00	0,00E+00	6,74E-19	0,00E+00	3,44E-18	0,00E+00
1,77E-02	7,83E-02	5,67E-02	2,00E-01	5,30E-02	6,81E-02	3,18E-02	3,25E-03
7,92E-19	9,14E-01	0,00E+00	1,77E-02	0,00E+00	6,70E-01	0,00E+00	4,97E-01
3,34E-01	1,85E+00	2,10E-02	4,82E-01	2,48E-02	5,21E-01	0,00E+00	1,89E+00
5,43E-02	3,66E-01	0,00E+00	6,02E-18	0,00E+00	2,77E-01	0,00E+00	7,11E-02
1,89E-18	3,27E-01	2,17E-18	3,17E-02	0,00E+00	2,02E-01	2,22E-18	3,01E-01
0,00E+00	1,15E-01	3,67E-02	1,03E-01	2,38E-01	3,02E-01	1,77E-18	2,25E-01
0,00E+00	2,56E-01	3,44E-18	1,81E-02	1,42E-01	1,93E-01	4,96E-18	2,65E-01
7,21E-18	2,48E-02	1,67E-01	9,45E-18	2,55E-02	1,57E-01	1,52E-02	1,87E-02
1,67E-02	1,01E-01	4,85E-02	4,60E-02	7,58E-18	1,15E-01	5,58E-02	1,58E-02
0,00E+00	3,32E-01	6,86E-18	1,18E-18	0,00E+00	3,59E-01	2,13E-17	2,43E-01
0,00E+00	2,03E-01	8,05E-18	0,00E+00	1,30E-17	3,69E-01	0,00E+00	5,17E-01
9,71E-18	2,80E-01	0,00E+00	0,00E+00	1,74E-19	1,86E-01	1,07E-02	2,25E-01
0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,40E-20	0,00E+00	0,00E+00	8,39E-21
3,30E-17	1,31E-01	1,32E-16	1,51E-02	0,00E+00	0,00E+00	0,00E+00	4,19E-02
8,29E-01	1,01E-01	3,90E-01	2,08E-01	7,11E-02	3,94E-01	1,67E-02	4,62E-01
1,25E-01	5,83E-01	2,55E-01	1,01E-01	1,73E-01	6,28E-01	1,04E-01	2,32E-01
0,00E+00	3,23E-01	0,00E+00	0,00E+00	0,00E+00	8,30E-02	2,11E-02	3,65E-18
2,94E-17	6,55E-02	0,00E+00	1,90E-02	0,00E+00	7,99E-02	0,00E+00	0,00E+00
3,61E-01	1,28E+00	3,26E-01	5,88E-02	6,04E-02	9,04E-01	1,98E-01	7,90E-01
0,00E+00	1,34E+00	5,60E-02	9,43E-02	3,13E-01	6,49E-01	1,80E-19	1,64E+00
0,00E+00	1,56E-17	0,00E+00	3,22E-03	0,00E+00	1,59E-17	5,45E-02	4,20E-17

MicMa300	MicMa308	MicMa309	MicMa314	MicMa318	MicMa321	MicMa334	MicMa335
8,89E-02	6,96E-01	5,33E-02	1,47E-01	3,50E-01	9,56E-01	2,28E-01	1,62E+00
2,18E-01	6,82E-01	4,80E-01	1,17E-01	6,84E-01	4,94E-01	0,00E+00	6,84E-01
2,21E-01	6,51E-01	1,72E-01	0,00E+00	4,56E-19	2,90E-01	0,00E+00	5,25E-01
0,00E+00	4,79E-02	0,00E+00	2,07E-17	1,38E-18	3,94E-18	0,00E+00	7,69E-02
5,79E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,34E-18	1,05E-17	0,00E+00
5,36E-02	9,59E-02	4,26E-02	0,00E+00	9,64E-02	1,89E-01	6,62E-02	5,09E-02
4,41E-01	8,20E-01	6,45E-18	2,12E-18	1,12E-01	4,82E-01	6,02E-18	7,21E-01
8,31E-01	1,69E+00	5,90E-02	3,63E-01	2,32E-01	2,94E-01	6,14E-01	8,28E-01
9,32E-02	2,88E-01	0,00E+00	3,19E-18	4,33E-02	1,34E-01	0,00E+00	2,05E-01
2,66E-02	2,69E-01	0,00E+00	3,13E-03	6,57E-02	5,48E-02	5,00E-02	9,97E-02
0,00E+00	2,42E-03	9,28E-02	3,15E-02	8,24E-02	2,78E-01	2,38E-01	2,44E-01
1,12E-17	0,00E+00	1,17E-18	4,60E-02	6,52E-02	3,11E-01	1,34E-01	3,18E-01
1,08E-19	8,52E-18	1,06E-01	4,38E-02	1,69E-02	4,14E-02	1,60E-01	1,25E-01
0,00E+00	7,83E-03	8,70E-02	4,52E-02	2,05E-02	4,44E-02	0,00E+00	7,53E-02
0,00E+00	2,29E-01	1,34E-17	0,00E+00	9,79E-02	2,33E-01	2,58E-02	6,14E-02
4,70E-03	1,27E-01	0,00E+00	8,55E-18	2,79E-18	3,26E-01	1,14E-01	2,01E-01
6,55E-02	2,97E-01	4,59E-03	3,16E-18	7,08E-02	1,62E-01	5,99E-02	1,81E-01
0,00E+00	0,00E+00	1,82E-19	0,00E+00	0,00E+00	0,00E+00	9,91E-18	0,00E+00
9,68E-18	3,12E-02	9,78E-17	5,94E-18	0,00E+00	1,34E-01	4,43E-17	1,95E-03
4,66E-02	1,29E-01	1,17E-01	7,06E-02	3,80E-01	7,65E-02	3,10E-01	2,76E-01
5,07E-18	2,27E-01	9,64E-02	1,89E-01	4,02E-01	3,85E-01	1,92E-01	1,12E-01
2,68E-17	8,96E-02	0,00E+00	7,45E-02	3,43E-01	2,11E-01	4,34E-18	3,80E-02
3,64E-17	1,41E-01	6,48E-02	0,00E+00	5,17E-17	6,02E-02	3,98E-17	1,70E-01
1,37E-01	6,54E-01	3,45E-01	4,32E-01	3,87E-01	8,72E-01	0,00E+00	5,48E-01
3,25E-01	6,51E-01	4,15E-02	3,79E-17	4,16E-01	8,42E-01	7,06E-02	4,73E-01
5,57E-19	6,58E-18	0,00E+00	0,00E+00	2,68E-02	0,00E+00	2,15E-02	2,23E-02

MicMa338	MicMa341	MicMa355	MicMa357	MicMa359	MicMa363	MicMa371	MicMa388
8,35E-17	1,05E-01	3,29E-01	1,96E-17	4,87E-01	9,52E-01	8,53E-18	2,91E-01
3,57E-01	3,39E-18	6,32E-01	1,71E-01	3,29E-02	7,83E-01	2,93E-01	1,85E-17
4,25E-18	4,21E-02	1,91E-01	4,40E-02	2,97E-01	3,63E-01	7,79E-02	6,62E-01
5,29E-17	0,00E+00	4,70E-17	3,31E-18	0,00E+00	2,72E-17	0,00E+00	1,91E-02
0,00E+00	0,00E+00	0,00E+00	8,05E-18	1,46E-17	1,31E-17	4,75E-18	4,94E-02
1,50E-19	5,82E-04	5,95E-02	2,71E-01	1,35E-01	2,90E-01	0,00E+00	1,20E-01
0,00E+00	2,07E-01	5,01E-01	9,02E-19	4,94E-01	2,88E-01	3,41E-02	4,61E-01
6,44E-01	1,35E+00	1,79E+00	4,72E-01	1,45E+00	2,15E+00	1,41E+00	2,08E+00
1,16E-02	6,16E-18	1,94E-03	4,88E-02	0,00E+00	5,44E-02	1,63E-18	1,27E-01
1,04E-02	1,14E-01	2,32E-01	1,14E-17	6,05E-02	3,78E-01	9,77E-02	2,40E-01
5,52E-18	5,28E-02	1,34E-01	0,00E+00	6,95E-01	2,06E-01	0,00E+00	1,53E-01
0,00E+00	0,00E+00	1,93E-01	0,00E+00	3,24E-01	1,22E-01	4,58E-03	0,00E+00
4,73E-02	1,38E-01	5,04E-02	1,42E-02	3,19E-01	8,44E-02	3,43E-03	1,02E-01
0,00E+00	5,37E-02	4,74E-02	9,79E-03	1,85E-01	3,78E-02	3,64E-20	5,57E-03
0,00E+00	2,35E-18	2,12E-01	7,06E-17	8,67E-18	3,28E-01	0,00E+00	2,03E-01
0,00E+00	1,96E-01	7,86E-02	8,41E-18	4,05E-01	3,79E-01	1,02E-01	5,94E-22
0,00E+00	1,09E-18	1,29E-01	1,67E-17	4,17E-02	1,68E-01	6,47E-02	2,28E-01
1,11E-02	3,86E-03	0,00E+00	2,08E-03	0,00E+00	1,02E-02	4,07E-02	1,86E-17
3,34E-18	5,39E-18	1,51E-17	0,00E+00	0,00E+00	3,81E-18	6,65E-17	1,10E-01
5,46E-01	3,95E-02	7,89E-01	5,07E-02	2,44E-01	1,50E-01	5,81E-01	1,03E-02
3,76E-03	8,52E-02	4,58E-01	1,54E-02	4,29E-02	1,43E-01	1,53E-01	1,70E-01
0,00E+00	8,34E-18	1,15E-01	1,94E-02	2,47E-17	0,00E+00	1,88E-17	7,76E-18
0,00E+00	4,37E-20	0,00E+00	2,63E-17	9,37E-18	9,72E-17	3,42E-17	0,00E+00
9,81E-02	0,00E+00	5,57E-01	8,25E-02	4,29E-17	9,26E-17	6,53E-02	0,00E+00
1,36E-01	3,27E-01	6,34E-01	1,03E+00	3,45E-01	1,02E+00	6,05E-01	5,91E-01
6,45E-18	3,81E-17	5,16E-18	1,71E-17	2,80E-18	0,00E+00	5,22E-19	1,69E-02

MicMa406	MicMa430	MicMa451	MicMa457	MicMa470	MicMa476	MicMa488	MicMa493
4,46E-01	4,61E-01	4,15E-01	1,36E+00	1,35E-01	0,00E+00	1,32E-01	2,38E-02
8,79E-02	5,36E-01	6,89E-01	2,45E-01	5,16E-01	1,42E-01	2,77E-01	2,65E-02
1,12E-01	1,11E-01	8,67E-02	8,62E-01	1,35E-19	1,34E-01	1,79E-01	9,37E-04
0,00E+00	0,00E+00	6,63E-18	0,00E+00	6,83E-18	1,43E-18	0,00E+00	1,66E-19
1,72E-02	5,82E-18	0,00E+00	4,05E-02	1,62E-17	9,01E-03	2,84E-18	5,19E-19
1,93E-01	1,19E-01	2,27E-01	2,41E-01	1,01E-01	1,37E-01	2,04E-02	7,47E-02
2,17E-01	6,47E-01	3,78E-01	9,59E-01	2,87E-17	1,51E-02	7,70E-18	3,58E-02
5,49E-02	8,81E-01	1,05E+00	2,56E+00	1,27E+00	0,00E+00	7,10E-01	2,64E-01
4,78E-02	2,35E-01	4,08E-02	2,20E-01	0,00E+00	0,00E+00	7,56E-02	0,00E+00
0,00E+00	1,14E-01	7,87E-02	4,58E-01	5,20E-02	0,00E+00	2,51E-02	6,51E-18
3,98E-01	2,85E-03	0,00E+00	1,43E-01	1,59E-01	6,59E-02	2,40E-01	2,41E-01
2,67E-01	3,30E-18	0,00E+00	1,31E-01	5,04E-02	2,23E-02	7,08E-02	1,14E-01
2,67E-02	9,50E-02	1,25E-02	0,00E+00	9,20E-02	2,14E-02	4,63E-02	7,01E-02
5,41E-02	1,45E-02	2,29E-02	2,66E-02	1,08E-01	2,01E-02	1,17E-01	9,94E-02
1,49E-17	3,00E-01	0,00E+00	2,72E-01	3,05E-18	7,54E-18	1,23E-18	4,38E-18
3,36E-02	3,24E-19	0,00E+00	4,30E-01	4,03E-01	0,00E+00	0,00E+00	2,45E-02
1,82E-18	1,66E-01	1,17E-18	2,52E-01	1,14E-02	0,00E+00	1,89E-02	1,93E-02
2,24E-21	1,24E-17	0,00E+00	8,80E-04	4,72E-02	2,94E-19	1,29E-02	3,37E-03
1,40E-17	2,03E-17	4,50E-17	3,16E-01	1,07E-16	0,00E+00	1,45E-16	1,74E-17
3,56E-01	6,07E-01	1,44E-02	2,89E-02	4,57E-01	5,51E-02	2,17E-01	3,45E-02
1,71E-01	5,55E-01	1,22E-01	5,73E-01	1,27E-01	9,49E-02	1,16E-01	5,89E-02
3,80E-18	2,06E-03	0,00E+00	5,79E-02	1,72E-17	5,71E-02	1,08E-02	0,00E+00
1,11E-17	0,00E+00	0,00E+00	2,60E-01	5,90E-17	1,15E-01	0,00E+00	3,73E-17
5,82E-01	5,39E-01	4,30E-01	0,00E+00	4,17E-01	4,82E-01	3,60E-01	0,00E+00
0,00E+00	1,17E-01	3,06E-01	7,75E-01	2,35E-01	5,58E-01	5,38E-01	1,31E-01
0,00E+00	0,00E+00	0,00E+00	1,00E-01	0,00E+00	9,84E-19	0,00E+00	8,87E-18

MicMa539	MicMa570	MicMa579	MicMa627	MicMa630	MicMa632	MicMa709	MicMa722	DCTB055
0,00E+00	1,05E-01	1,07E+00	3,62E-01	1,22E+00	2,04E-01	5,42E-01	1,13E+00	5,38E-03
4,72E-02	4,09E-01	1,61E-01	7,53E-01	5,09E-01	2,22E-01	4,58E-01	4,55E-01	2,09E-02
0,00E+00	3,11E-01	3,98E-01	2,71E-01	9,77E-01	5,52E-02	6,83E-02	5,47E-01	1,45E-21
3,87E-18	0,00E+00	0,00E+00	7,20E-19	3,27E-19	8,69E-18	5,16E-17	1,33E-18	0,00E+00
0,00E+00	0,00E+00	1,14E-17	0,00E+00	1,31E-01	2,78E-17	5,07E-19	0,00E+00	1,22E-18
0,00E+00	2,19E-01	4,89E-02	2,03E-01	1,01E-01	1,97E-01	5,55E-02	6,49E-02	1,08E-02
6,98E-02	6,33E-01	4,10E-01	6,79E-01	7,69E-01	1,69E-02	0,00E+00	6,39E-01	9,36E-03
1,06E+00	7,11E-01	9,38E-01	1,93E+00	1,72E+00	2,98E-01	3,59E-01	1,02E+00	1,07E-02
0,00E+00	1,34E-01	7,65E-02	1,62E-02	1,39E-01	3,78E-02	2,10E-02	1,20E-01	2,51E-03
5,86E-02	0,00E+00	1,64E-01	1,70E-01	3,46E-01	1,04E-02	6,39E-19	2,73E-01	3,27E-21
1,31E-01	1,40E-04	7,33E-01	2,34E-01	2,74E-01	1,49E-01	3,63E-01	4,67E-01	3,74E-04
4,83E-02	6,96E-19	4,10E-01	1,03E-01	2,84E-01	6,33E-02	4,71E-01	4,37E-01	1,22E-03
1,30E-01	3,09E-02	3,61E-01	2,32E-01	0,00E+00	0,00E+00	7,63E-18	1,50E-01	8,08E-04
3,92E-02	7,53E-02	5,03E-02	1,35E-01	1,08E-01	4,25E-02	1,04E-02	7,48E-02	4,79E-03
7,12E-17	6,59E-02	1,47E-01	7,62E-02	3,62E-01	0,00E+00	0,00E+00	1,77E-01	9,51E-03
1,65E-17	0,00E+00	4,00E-01	1,28E-01	4,43E-01	0,00E+00	6,38E-02	4,20E-01	1,54E-05
2,40E-18	1,89E-01	1,13E-01	1,26E-01	2,43E-01	0,00E+00	7,70E-02	1,40E-01	0,00E+00
0,00E+00	5,84E-20	1,19E-19	0,00E+00	1,95E-18	7,49E-20	6,68E-03	6,43E-18	2,99E-23
0,00E+00	0,00E+00	8,00E-02	2,07E-17	2,22E-01	5,20E-17	0,00E+00	1,14E-01	1,84E-18
4,08E-01	2,73E-01	3,26E-01	2,69E-01	0,00E+00	8,65E-02	3,86E-01	1,32E-01	1,83E-02
3,43E-01	9,44E-02	4,10E-01	4,95E-01	3,57E-01	1,45E-01	1,87E-01	5,66E-01	5,69E-03
0,00E+00	3,39E-18	8,84E-18	1,87E-18	1,38E-01	4,76E-02	4,52E-02	1,85E-01	4,35E-03
4,34E-17	0,00E+00	4,74E-02	5,25E-02	1,74E-01	0,00E+00	2,21E-17	1,24E-01	0,00E+00
2,00E-01	5,67E-18	1,78E-01	2,48E-02	5,67E-01	4,39E-01	1,10E+00	1,19E+00	1,22E-17
0,00E+00	4,91E-01	9,28E-01	0,00E+00	1,27E+00	4,91E-01	7,60E-01	6,61E-01	6,88E-02
1,83E-19	4,01E-17	3,84E-19	0,00E+00	0,00E+00	3,13E-18	1,19E-17	3,56E-03	0,00E+00

DCTB084	DCTB087	DCTB094	DCTB117	DCTB127	DCTB128	DCTB133	DCTB152	DCTB155
0,00E+00	0,00E+00	2,03E-03	1,41E-02	4,19E-19	1,26E-18	1,30E-02	0,00E+00	9,14E-03
0,00E+00	2,57E-02	2,72E-02	2,65E-02	0,00E+00	4,61E-03	3,97E-02	5,85E-02	1,30E-03
1,54E-03	2,04E-19	0,00E+00	0,00E+00	0,00E+00	3,81E-19	4,75E-20	0,00E+00	1,02E-02
1,45E-18	0,00E+00	0,00E+00	1,59E-18	1,25E-03	1,73E-03	4,41E-19	0,00E+00	0,00E+00
3,59E-19	1,34E-18	2,56E-18	4,66E-04	0,00E+00	0,00E+00	1,10E-18	2,47E-18	2,24E-03
5,24E-03	3,09E-03	7,30E-03	7,50E-03	1,03E-02	8,29E-03	0,00E+00	0,00E+00	1,27E-04
4,79E-03	0,00E+00	0,00E+00	6,61E-03	8,34E-03	1,19E-02	1,04E-18	0,00E+00	0,00E+00
8,08E-03	4,53E-03	2,56E-03	2,01E-04	6,13E-03	1,53E-03	1,25E-02	2,46E-03	2,59E-03
1,06E-02	3,90E-03	2,69E-03	1,84E-19	1,03E-02	2,49E-02	4,40E-03	1,08E-02	0,00E+00
6,04E-04	1,98E-19	0,00E+00	0,00E+00	4,49E-20	2,39E-20	0,00E+00	0,00E+00	4,01E-20
1,47E-04	2,13E-03	0,00E+00	0,00E+00	5,52E-04	2,26E-19	7,57E-04	2,82E-19	5,87E-04
5,80E-20	5,44E-04	6,67E-04	0,00E+00	1,56E-19	1,66E-19	0,00E+00	0,00E+00	0,00E+00
4,00E-19	4,16E-03	1,02E-20	1,97E-03	3,02E-03	4,47E-03	1,86E-04	3,71E-04	2,84E-20
2,59E-03	2,43E-03	4,16E-03	4,57E-03	8,70E-03	1,20E-02	3,81E-03	2,41E-03	3,04E-03
3,29E-04	3,53E-03	5,69E-04	2,66E-03	0,00E+00	5,31E-18	3,73E-03	0,00E+00	5,30E-03
2,64E-03	0,00E+00	0,00E+00	0,00E+00	9,09E-04	7,17E-04	1,45E-18	1,64E-18	2,71E-03
6,17E-19	6,48E-04	8,27E-19	2,51E-18	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,26E-19
0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,33E-03	2,05E-03	0,00E+00	1,65E-19	3,09E-19
2,68E-18	0,00E+00	0,00E+00	0,00E+00	6,51E-19	0,00E+00	3,37E-18	6,82E-18	0,00E+00
2,27E-02	2,77E-02	4,09E-02	8,61E-03	2,66E-02	3,52E-03	3,40E-02	5,94E-03	2,38E-02
2,04E-03	2,01E-04	7,73E-04	3,31E-03	3,67E-03	1,23E-03	3,35E-03	1,42E-20	1,99E-02
0,00E+00	3,07E-04	5,25E-03	7,40E-03	0,00E+00	0,00E+00	1,19E-02	0,00E+00	5,42E-20
0,00E+00	6,75E-18	9,20E-18	0,00E+00	3,43E-18	0,00E+00	7,92E-18	2,82E-18	0,00E+00
1,74E-18	0,00E+00	2,28E-18	1,19E-19	0,00E+00	2,06E-18	0,00E+00	0,00E+00	3,98E-03
2,34E-02	2,93E-02	1,48E-02	3,44E-02	2,11E-02	1,90E-02	2,97E-02	1,61E-02	2,91E-02
1,36E-20	7,67E-03	9,77E-03	4,44E-03	2,65E-03	4,73E-03	7,86E-03	8,70E-03	3,10E-04

DCTB156	DCTB157	DCTB158	DCTB199	DCTB201	DCTB202	DCTB203	DCTB223	DCTB229
2,29E-03	1,42E-02	1,32E-02	6,71E-03	1,07E-02	4,04E-03	6,77E-03	1,71E-02	2,57E-18
2,57E-02	5,03E-03	3,94E-02	9,20E-02	1,40E-18	6,66E-19	3,70E-02	2,80E-02	5,56E-02
0,00E+00	0,00E+00	2,11E-19	6,94E-20	9,46E-21	1,21E-19	0,00E+00	6,34E-04	0,00E+00
0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,02E-18	8,91E-19	0,00E+00	4,23E-18	9,76E-19
6,66E-19	5,07E-19	0,00E+00	4,32E-18	8,43E-19	0,00E+00	5,81E-19	0,00E+00	3,58E-18
1,30E-02	3,46E-03	1,19E-19	1,43E-19	2,95E-03	7,18E-03	7,78E-04	0,00E+00	0,00E+00
6,55E-03	8,99E-03	6,28E-03	5,99E-21	9,06E-20	0,00E+00	0,00E+00	0,00E+00	8,45E-20
3,15E-03	1,11E-03	3,34E-03	6,02E-03	6,42E-03	1,01E-02	5,37E-03	0,00E+00	1,45E-03
6,23E-03	2,03E-03	4,73E-03	4,12E-03	3,06E-03	0,00E+00	7,91E-03	2,32E-03	6,33E-20
0,00E+00	0,00E+00	2,08E-19	1,52E-20	6,18E-24	1,70E-19	0,00E+00	0,00E+00	0,00E+00
0,00E+00	0,00E+00	4,66E-20	2,45E-20	0,00E+00	3,31E-03	0,00E+00	5,09E-04	2,61E-19
1,76E-20	1,32E-19	0,00E+00	0,00E+00	0,00E+00	3,15E-03	0,00E+00	0,00E+00	4,30E-19
2,41E-04	0,00E+00	0,00E+00	0,00E+00	1,28E-03	3,20E-03	0,00E+00	2,20E-03	0,00E+00
2,04E-03	3,81E-03	7,93E-04	3,34E-03	1,83E-02	3,96E-03	4,10E-03	5,32E-03	6,47E-03
1,08E-02	6,83E-03	0,00E+00	5,46E-03	3,74E-04	0,00E+00	1,35E-02	1,06E-02	2,56E-03
1,15E-03	7,71E-03	6,15E-19	0,00E+00	4,50E-19	6,48E-03	8,33E-19	0,00E+00	2,13E-18
2,78E-19	0,00E+00	0,00E+00	6,11E-19	0,00E+00	0,00E+00	0,00E+00	9,41E-20	8,77E-04
7,50E-19	0,00E+00	1,47E-19	1,83E-19	3,64E-04	0,00E+00	1,30E-19	9,23E-19	0,00E+00
0,00E+00	7,86E-04	0,00E+00	1,62E-17	0,00E+00	0,00E+00	1,61E-18	3,08E-18	1,86E-17
8,56E-04	2,01E-02	4,79E-03	1,07E-02	1,97E-02	9,93E-03	1,00E-02	1,76E-02	2,80E-02
6,64E-03	1,07E-02	1,77E-19	1,13E-03	7,67E-04	9,47E-03	8,80E-03	4,82E-03	1,20E-02
1,54E-03	0,00E+00	8,86E-03	1,78E-03	0,00E+00	7,43E-19	4,79E-04	7,42E-03	1,19E-03
0,00E+00	4,45E-20	1,79E-19	0,00E+00	8,04E-18	3,22E-18	1,21E-18	3,74E-18	1,20E-17
3,65E-03	0,00E+00	0,00E+00	1,00E-18	0,00E+00	4,30E-03	2,57E-03	7,29E-03	2,50E-03
3,44E-02	1,66E-02	7,67E-03	3,17E-02	3,20E-02	7,21E-03	8,30E-03	2,85E-03	1,18E-02
5,39E-19	5,71E-03	3,10E-03	7,94E-03	0,00E+00	3,29E-03	8,17E-03	2,47E-02	7,24E-04

DCTB235	DCTB237	DCTB258	DCTB264	DCTB293	DCTB302
5,64E-19	8,76E-03	8,06E-04	2,79E-19	1,44E-02	3,99E-03
1,38E-01	8,69E-02	2,79E-02	3,37E-02	1,72E-02	2,13E-02
1,72E-18	0,00E+00	0,00E+00	1,18E-19	0,00E+00	3,24E-03
7,34E-19	1,51E-19	0,00E+00	0,00E+00	0,00E+00	1,18E-18
9,80E-18	3,20E-18	0,00E+00	2,61E-18	2,23E-03	4,48E-04
0,00E+00	7,25E-03	1,92E-03	3,38E-03	0,00E+00	0,00E+00
1,04E-03	0,00E+00	9,91E-04	6,62E-19	0,00E+00	0,00E+00
2,80E-19	1,48E-03	6,33E-19	2,34E-03	4,45E-03	3,35E-03
4,28E-03	4,01E-20	9,09E-04	7,12E-04	5,02E-03	0,00E+00
3,61E-20	2,96E-20	4,61E-19	0,00E+00	2,25E-04	2,97E-19
3,66E-19	0,00E+00	0,00E+00	3,43E-20	3,62E-03	0,00E+00
1,94E-18	1,17E-18	1,71E-19	5,14E-20	1,73E-03	3,46E-19
0,00E+00	0,00E+00	3,04E-03	2,45E-04	1,29E-04	0,00E+00
1,41E-03	5,59E-03	2,82E-03	1,86E-03	3,13E-03	3,01E-03
0,00E+00	1,98E-03	4,84E-03	5,96E-19	1,98E-03	3,17E-03
2,70E-18	5,90E-19	6,10E-04	0,00E+00	0,00E+00	0,00E+00
1,28E-19	3,86E-19	0,00E+00	6,89E-04	2,67E-04	0,00E+00
8,49E-19	3,95E-19	0,00E+00	5,82E-04	7,55E-21	0,00E+00
0,00E+00	1,56E-17	0,00E+00	1,16E-18	4,63E-18	2,56E-19
1,90E-02	1,72E-02	0,00E+00	2,76E-02	1,37E-02	4,34E-03
0,00E+00	7,30E-03	1,72E-03	1,56E-03	6,23E-03	1,10E-02
5,91E-03	1,41E-19	2,97E-03	3,31E-18	0,00E+00	1,42E-02
1,69E-17	4,94E-18	0,00E+00	1,53E-18	2,33E-18	0,00E+00
9,49E-19	0,00E+00	5,19E-19	7,48E-19	0,00E+00	8,69E-03
1,19E-02	2,60E-02	1,77E-02	2,16E-02	1,93E-03	5,96E-04
4,83E-03	2,02E-03	4,94E-03	8,09E-04	1,23E-02	0,00E+00

Supplementary Table 6: Patient characteristic of the MicMa and the DCTB cohorts

	MicMa (n=131)	DCTB (n=28)
Estrogen receptor status		
ER positive	74	16
ER negative	49	8
NA	8	4
Progesteron receptor status		
PR positive	57	12
PR negative	62	16
NA	12	0
Her2 receptor status		
Her2 positive	19	20
Her2 negative	97	8
NA	15	0
Size		
> 2cm	54	23
< 2cm	56	5
	21	0
Clinical tumor grade		
1	16	0
2	61	11
3	47	17
NA	7	0

Supplementary Table 7: Cytokines, chemokines and growth factors assessed in the MicMa and the DCTE

Cytokine	Gene symbol	Gene name
MCP-1	CCL2	Chemokine (C-C motif) ligand 2
MIP-1a	CCL3	Chemokine (C-C motif) ligand 3
MIP-1b	CCL4	Chemokine (C-C motif) ligand 4
RANTES	CCL5	Chemokine (C-C motif) ligand 5
Eotaxin	CCL11	Chemokine (C-C motif) ligand 11
IL-8	CXCL8	Chemokine (C-X-C motif) ligand 8
IP-10	CXCL10	Chemokine (C-X-C motif) ligand 10
FGF	FGF2	Fibroblast growth factor 2 (basic)
VEGF	VEGFA	Vascular endothelial growth factor A
PDGF β	PDGFB	Platelet-derived growth factor beta polypeptide
GM-CSF	CSF2	Colony-stimulating factor 2
G-CSF	CSF3	Colony-stimulating factor 3
TNF-a	TNF	Tumour necrosis factor
IFN- γ	IFNG	Interferon, gamma
IL-1RA	IL1RN	Interleukin 1 receptor antagonist
IL-1b	IL1B	Interleukin 1, beta
IL-2	IL2	Interleukin 2
IL-4	IL4	Interleukin 4
IL-5	IL5	Interleukin 5
IL-6	IL6	Interleukin 6
IL-7	IL7	Interleukin 7
IL-9	IL9	Interleukin 9
IL-10	IL10	Interleukin 10
IL-12	IL12A	Interleukin 12
IL-13	IL13	Interleukin 13
IL-15	IL15	Interleukin 15
IL-17	IL17A	Interleukin 17

› cohorts

Supplementary Table 8: Cytokines levels natural log transformation (pg/mL) in the MicMa and the D

	MicMa002	MicMa003	MicMa004	MicMa006	MicMa009	MicMa010
IL1B	1,13	1,04	1,13	0,97	1,00	1,57
IL1RA	3,23	0,00	3,30	0,00	0,00	4,79
IL2	3,53	3,14	2,78	3,05	3,50	3,87
IL4	1,94	1,60	1,92	1,73	1,86	2,16
IL5	2,09	1,82	2,08	1,82	2,05	2,43
IL6	2,42	1,25	1,87	2,05	1,61	3,26
IL7	2,34	1,98	2,08	2,13	2,60	2,29
IL8	4,88	3,49	3,61	3,64	3,65	4,65
IL9	2,92	2,33	2,47	3,94	2,23	3,44
IL10	2,97	2,34	2,58	2,04	2,60	2,78
IL12	2,78	0,00	1,91	0,31	2,22	4,01
IL13	2,72	1,99	2,03	1,23	1,33	2,84
IL15	0,28	3,36	0,00	3,16	3,98	3,67
IL17	5,18	4,71	5,22	5,09	5,29	5,76
Eotaxin	4,58	4,64	4,18	4,40	4,59	5,19
FGF	4,19	4,01	4,12	3,92	4,36	5,66
G_CSF	3,81	3,31	3,28	3,30	3,41	5,67
GM_CSF	3,99	0,88	4,71	0,00	4,91	4,88
IFNG	3,91	3,67	3,97	3,64	3,66	4,20
IP10	5,96	5,94	5,95	6,18	5,91	7,52
MCP1	5,79	5,26	4,83	5,37	5,52	4,66
MIP1a	2,90	1,53	1,63	1,56	1,73	3,45
PDGF	7,55	7,00	7,52	7,56	7,75	7,80
MIP1b	6,42	4,98	5,74	5,69	5,84	6,88
TNFa	3,85	3,50	3,62	3,75	3,72	3,67
RANTES	9,40	9,27	10,03	8,82	10,35	9,64
VEGF	4,58	3,70	4,63	3,99	5,02	4,80

CTB cohorts

MicMa019	MicMa020	MicMa022	MicMa023	MicMa024	MicMa028	MicMa031
1,30	1,33	1,15	1,63	0,87	2,51	2,24
3,47	6,53	3,00	6,39	2,71	4,80	2,91
3,65	4,33	3,29	4,04	3,54	2,93	3,31
1,93	1,94	1,95	1,86	2,08	1,89	2,00
2,06	2,24	2,13	1,98	2,17	2,01	2,13
2,15	4,27	2,29	4,48	2,02	2,19	2,44
2,91	2,34	2,41	2,52	2,67	2,14	2,78
3,70	3,74	4,88	5,49	3,74	3,39	7,01
2,53	2,42	2,99	3,60	2,21	2,94	2,42
2,20	4,18	2,67	5,35	2,76	2,30	1,92
4,40	5,13	0,59	5,10	0,42	3,34	2,61
1,61	2,18	1,86	1,82	1,42	1,64	1,53
3,20	4,30	3,02	3,83	2,95	0,00	1,79
5,33	5,36	5,28	5,58	5,45	5,11	5,33
5,21	6,09	4,13	5,49	4,29	4,99	4,19
4,24	4,19	4,27	4,95	4,13	4,47	3,96
3,43	3,73	3,48	3,95	3,58	3,56	3,39
4,23	4,95	4,23	3,14	4,92	3,95	2,93
3,81	3,95	3,84	3,99	3,99	6,11	4,20
6,54	5,88	5,97	5,91	5,74	6,16	5,18
4,65	5,24	6,14	5,39	5,51	4,73	4,67
2,26	2,16	1,69	2,75	1,71	2,14	2,67
7,77	7,67	7,63	7,62	8,02	7,16	7,90
6,30	6,18	5,62	5,64	5,32	6,07	5,96
3,51	3,93	3,61	4,28	3,87	4,99	3,83
9,61	9,70	9,85	9,81	10,51	9,19	9,97
4,50	4,60	4,16	4,41	3,92	4,06	4,99

MicMa034	MicMa042	MicMa044	MicMa051	MicMa052	MicMa053	MicMa055
1,50	1,18	1,17	1,12	0,76	1,05	0,83
7,32	3,99	3,42	5,29	4,53	2,59	0,00
5,59	3,35	3,51	4,31	3,17	3,35	3,06
1,70	1,93	2,27	1,92	1,33	1,77	1,41
2,21	2,10	2,62	2,10	1,37	2,03	1,67
5,20	3,00	1,82	3,05	2,37	2,63	0,90
3,41	2,69	3,63	2,49	1,59	2,43	1,90
6,09	3,20	4,29	3,34	3,93	5,24	2,98
2,31	2,87	3,82	2,10	3,14	4,13	2,42
3,07	2,35	2,38	2,63	3,59	2,07	2,37
1,96	2,79	3,91	2,33	2,55	1,01	1,12
2,79	0,93	3,24	1,56	1,51	1,38	1,18
0,00	3,36	3,12	4,26	0,00	3,20	3,65
5,19	5,48	5,58	5,12	4,37	5,26	4,79
4,45	3,71	5,54	4,65	4,35	3,83	3,52
3,81	4,38	4,87	4,27	3,72	3,66	4,24
3,58	4,06	4,45	3,43	2,70	3,30	3,03
2,21	4,26	3,75	4,27	4,81	4,62	5,23
4,10	3,96	4,21	3,91	3,22	3,68	3,27
5,55	6,14	6,56	5,28	5,93	6,51	6,16
4,57	3,92	5,47	4,79	4,70	4,14	4,29
2,37	1,83	2,58	1,59	1,54	1,53	1,60
7,25	7,96	7,60	7,74	7,43	7,72	6,98
5,73	5,50	6,05	5,51	6,12	6,11	5,28
3,56	3,97	5,58	3,85	3,24	4,83	3,38
9,63	9,86	9,24	10,02	9,54	10,23	8,12
4,29	4,87	4,62	4,40	3,93	4,79	4,62

MicMa057	MicMa064	MicMa065	MicMa067	MicMa068	MicMa069	MicMa071
1,03	1,02	2,50	1,14	0,85	0,88	0,89
2,91	0,00	5,20	9,97	0,00	0,00	4,63
3,45	3,38	4,33	6,83	1,97	0,00	3,23
1,87	1,80	2,50	1,85	1,44	1,37	1,64
2,15	2,03	1,84	2,23	1,79	1,66	2,02
2,10	1,48	3,71	6,39	1,54	1,60	2,83
2,33	2,36	2,17	4,16	1,57	1,97	1,54
3,44	3,24	3,67	3,57	3,24	3,24	3,56
2,40	2,57	2,47	4,63	1,60	3,21	3,81
2,57	2,20	2,16	7,12	1,74	1,51	2,52
2,26	4,59	0,10	7,28	0,00	0,00	1,68
1,96	1,64	1,82	4,64	1,51	1,19	2,15
3,57	3,75	4,06	3,25	0,00	0,00	0,00
5,49	5,29	5,27	5,43	4,62	4,07	4,78
4,80	4,00	5,27	4,10	3,86	3,28	4,00
4,27	4,26	4,67	4,91	3,62	3,30	3,78
3,53	3,25	4,48	3,52	2,97	2,93	3,43
4,12	4,47	4,28	4,07	3,91	0,00	4,29
3,76	3,76	5,24	4,94	3,39	3,46	3,76
5,57	6,11	5,91	6,03	5,92	6,86	6,78
5,25	4,21	5,04	4,36	4,34	3,97	3,82
1,70	1,67	2,22	1,86	1,64	0,96	1,97
7,85	7,31	7,03	7,58	6,60	6,22	7,21
5,48	5,29	5,41	5,58	5,95	5,95	5,89
3,84	3,72	4,48	4,25	3,14	3,34	3,59
9,67	9,30	9,31	10,03	9,66	9,74	9,44
4,99	4,21	3,86	4,67	3,73	3,68	4,26

MicMa085	MicMa086	MicMa088	MicMa089	MicMa091	MicMa092	MicMa093
1,06	1,15	0,92	1,00	0,86	1,90	0,84
8,34	5,36	2,56	2,21	0,00	5,51	2,50
6,22	4,40	3,45	2,64	3,67	3,71	2,21
1,89	1,84	1,84	1,50	1,73	2,02	1,51
2,03	2,24	2,04	1,61	1,92	2,06	1,91
6,34	3,09	3,06	1,09	0,00	3,33	2,15
5,83	3,00	2,80	1,57	1,86	2,74	2,03
3,13	3,60	3,40	3,08	3,65	4,08	3,68
2,58	2,69	2,55	2,03	2,86	6,46	3,19
6,91	3,16	2,45	0,91	2,27	2,74	1,95
5,33	4,05	2,03	1,92	2,01	4,17	3,23
5,31	2,21	1,06	1,57	1,95	1,62	2,42
3,21	3,31	3,56	0,00	2,44	3,83	0,00
5,16	5,21	5,06	4,71	4,94	5,58	4,84
2,50	4,43	3,64	4,49	4,68	5,34	5,02
4,04	3,97	4,06	3,61	3,65	4,81	4,31
3,17	3,83	3,80	3,59	3,50	4,24	3,96
4,06	1,22	4,34	3,93	3,93	5,44	4,54
3,72	4,04	3,70	3,26	3,82	4,75	3,90
6,20	6,50	6,45	5,53	6,41	6,12	6,62
4,79	5,06	4,27	4,16	4,57	5,59	4,77
1,41	1,77	1,67	1,77	1,80	2,34	2,64
7,72	7,69	8,02	7,10	7,43	7,63	6,84
5,23	6,04	5,58	5,12	5,60	5,34	6,25
3,84	3,81	3,70	3,52	3,48	4,60	3,81
9,91	11,82	11,01	10,56	8,52	10,56	9,29
5,14	4,01	4,84	4,61	4,76	4,08	4,60

MicMa098	MicMa100	MicMa101	MicMa106	MicMa107	MicMa108	MicMa112
0,82	1,03	0,92	1,35	1,53	0,90	1,61
0,00	3,44	3,52	4,74	4,86	0,00	4,35
2,79	3,58	2,72	3,27	3,63	3,39	3,47
1,62	1,80	1,47	1,81	2,40	1,81	1,91
1,94	1,98	1,84	2,04	2,04	1,92	2,08
2,14	1,95	0,00	2,44	2,39	0,48	1,68
2,30	2,45	2,53	2,72	2,59	2,56	3,30
3,71	3,39	4,54	3,54	3,30	3,23	3,50
2,95	2,17	3,05	2,54	3,10	2,15	2,34
1,92	1,43	3,19	2,59	3,25	2,34	2,25
1,48	1,19	2,78	0,55	3,37	1,85	0,00
1,97	1,90	2,46	1,33	1,83	1,01	1,37
3,18	3,64	0,00	0,00	3,76	3,71	3,41
4,76	5,12	4,78	5,14	5,20	5,12	5,29
5,73	4,55	4,81	4,68	3,98	5,14	4,83
3,81	3,79	3,71	4,10	3,99	4,17	4,42
3,51	3,45	3,49	3,57	3,86	3,45	3,50
3,60	4,03	3,62	3,76	3,85	4,70	4,34
3,67	3,75	3,64	3,99	5,07	3,76	4,32
6,93	7,09	6,71	6,55	5,99	5,74	5,99
5,08	5,02	4,22	4,21	4,63	3,52	4,37
2,20	1,95	2,87	1,75	1,64	1,61	1,79
7,16	7,28	7,20	7,83	7,76	7,63	8,24
6,12	6,00	6,34	5,86	5,58	5,73	5,32
3,49	3,45	3,00	3,67	4,14	3,57	3,99
11,28	11,35	11,82	11,82	11,82	11,82	11,82
4,71	4,21	4,52	4,24	4,91	5,09	4,58

MicMa119	MicMa122	MicMa130	MicMa132	MicMa137	MicMa139	MicMa140
1,21	0,96	0,78	1,78	1,46	0,82	1,24
3,95	0,00	0,00	5,48	3,99	0,00	4,00
3,81	3,01	2,50	2,29	3,44	2,68	3,73
1,81	1,73	1,76	1,66	2,80	1,72	1,84
2,11	1,83	1,96	1,73	2,84	2,10	2,11
3,08	1,72	0,27	2,69	2,08	1,21	2,28
2,45	1,58	2,19	2,30	3,48	1,89	2,85
3,82	6,05	3,38	3,40	3,03	3,28	3,75
3,08	2,42	2,13	3,67	1,56	1,58	3,00
3,88	2,37	1,54	2,03	3,03	1,58	2,09
3,98	1,82	0,00	2,60	1,40	0,00	3,13
1,74	1,04	1,68	2,04	3,26	1,44	2,23
2,78	0,00	0,00	0,00	3,18	0,00	3,41
4,94	4,77	5,13	4,65	4,58	5,03	5,34
5,45	4,50	4,18	5,24	4,16	4,46	4,48
3,65	3,79	2,96	3,95	4,36	3,08	4,90
3,79	3,45	3,66	3,75	5,20	3,45	4,27
1,44	2,04	4,20	4,00	4,21	0,00	4,59
4,12	3,57	3,64	4,63	5,65	3,57	4,16
6,49	5,84	5,85	6,80	6,56	6,51	6,84
5,30	3,80	4,68	5,41	5,57	4,08	4,61
2,59	1,61	1,48	1,80	1,70	1,66	2,65
7,72	7,19	7,24	7,03	7,09	7,24	7,50
5,69	5,86	5,55	5,90	5,23	4,78	5,50
3,64	3,40	3,53	4,59	4,66	3,34	3,81
10,78	10,72	8,85	11,82	9,65	10,98	9,87
5,01	4,30	4,20	4,47	4,32	4,01	4,18

MicMa146	MicMa148	MicMa150	MicMa157	MicMa163	MicMa165	MicMa167
1,05	1,10	0,59	0,82	0,74	0,95	0,76
3,41	1,67	0,00	2,97	0,00	3,44	2,50
2,90	2,95	1,39	3,21	2,98	2,93	0,00
1,72	1,66	1,23	1,79	1,59	1,73	1,33
2,01	1,88	1,43	2,01	1,69	1,90	1,48
2,31	2,81	0,88	2,26	1,28	1,75	1,35
1,65	1,98	2,01	2,23	2,29	2,20	1,77
5,27	7,15	3,69	3,42	3,14	4,17	3,70
2,71	2,22	1,28	1,80	2,78	2,33	2,25
1,69	1,36	1,45	0,83	1,95	3,65	4,99
0,72	4,21	0,00	0,00	0,37	3,66	3,63
1,57	0,64	1,25	1,29	1,16	1,94	1,06
0,00	0,00	0,00	1,73	0,00	0,00	0,00
4,98	5,01	4,27	5,07	4,83	4,71	4,63
5,27	4,55	4,58	4,92	3,48	5,41	5,45
3,25	4,30	3,47	3,74	3,98	3,26	4,75
3,55	3,69	3,15	3,70	3,23	3,39	3,18
0,00	2,37	4,20	3,91	0,00	3,79	0,00
3,67	3,53	2,98	3,73	3,60	3,97	3,23
6,96	6,87	6,11	5,81	6,47	6,53	6,08
4,06	4,82	4,79	5,03	4,85	4,86	4,58
2,83	2,32	1,81	1,79	1,42	2,20	2,12
7,43	7,60	6,70	7,78	7,22	6,93	7,02
6,19	6,13	5,79	5,69	5,87	6,38	5,58
3,57	3,48	2,96	3,36	3,34	3,62	3,06
11,82	11,82	11,82	10,43	11,82	11,82	11,82
4,81	4,42	4,24	4,47	4,78	4,19	4,93

MicMa169	MicMa171	MicMa185	MicMa187	MicMa190	MicMa191	MicMa193
0,77	0,94	0,89	0,71	1,00	1,11	0,64
0,00	0,00	0,00	0,00	0,00	3,52	0,00
2,81	3,17	3,29	2,46	3,29	3,06	1,80
1,40	1,67	1,79	1,37	1,87	1,86	1,38
1,54	1,88	1,93	1,44	2,12	2,12	1,79
1,16	0,81	1,73	2,14	1,52	2,07	0,00
1,58	2,36	2,39	1,97	2,52	2,64	1,55
3,63	3,53	3,37	2,94	3,70	4,77	3,28
2,45	5,30	2,93	1,99	2,22	2,19	0,77
2,42	1,54	1,36	1,40	2,01	3,13	0,51
1,48	1,19	0,00	0,00	0,00	3,35	0,00
0,83	1,78	1,16	1,67	2,53	2,00	1,21
0,78	3,09	2,93	0,00	3,35	2,59	0,00
4,50	4,87	5,11	4,65	5,22	5,22	4,51
3,37	4,80	4,04	4,39	4,42	5,09	4,84
3,66	3,82	3,47	3,95	3,47	3,99	0,00
2,98	3,37	3,48	3,55	3,56	3,43	3,09
4,21	2,62	3,96	3,83	4,45	3,60	1,66
3,42	3,97	3,86	3,40	3,76	3,92	3,42
6,14	6,05	6,56	6,00	6,97	7,51	6,75
4,33	4,83	5,01	4,21	5,11	4,41	4,18
2,22	1,69	1,52	2,27	1,65	2,57	1,12
6,97	7,28	7,74	7,03	7,62	7,66	6,55
6,02	5,83	4,93	4,92	5,77	6,08	5,00
3,37	3,46	3,58	3,12	3,55	3,73	3,19
10,62	11,82	11,82	11,28	11,82	11,82	9,05
3,76	4,85	4,33	4,08	3,71	5,66	2,91

MicMa197	MicMa201	MicMa209	MicMa210	MicMa212	MicMa218	MicMa220
0,64	0,49	0,97	1,12	1,04	1,10	0,91
0,00	4,83	3,45	6,95	6,20	3,94	0,00
2,41	2,50	3,13	5,01	4,38	3,50	2,63
1,38	1,31	1,71	1,69	1,74	1,70	1,41
1,57	1,09	2,21	1,96	1,72	1,69	1,55
0,00	0,81	1,69	3,74	3,86	1,87	1,84
1,29	0,92	1,50	3,67	2,18	1,97	2,46
3,28	4,83	3,58	3,50	4,82	4,31	4,45
0,67	2,07	2,75	2,93	4,21	2,22	2,13
1,66	0,41	1,96	6,49	5,08	2,46	1,72
0,26	0,00	0,00	5,38	4,60	2,11	1,91
1,44	0,24	2,05	2,33	2,82	1,08	1,12
0,00	0,00	0,00	4,05	3,72	0,00	3,09
4,35	4,06	5,28	5,22	5,03	4,93	4,59
4,17	4,50	5,13	3,86	4,85	3,68	4,10
3,32	3,81	3,70	4,60	4,00	4,08	4,01
3,05	3,12	4,01	3,85	3,93	4,31	3,45
4,21	3,55	2,97	4,13	3,44	4,40	4,54
3,16	3,98	3,63	4,38	3,78	3,70	3,33
6,20	6,15	6,43	5,97	5,89	6,14	6,71
4,40	4,81	4,49	4,85	4,94	4,87	5,48
1,90	2,32	1,78	1,49	1,92	2,03	1,86
6,67	6,79	7,47	7,73	7,27	7,43	7,31
5,25	6,86	5,88	4,94	5,81	5,56	5,88
3,22	3,86	3,59	3,89	3,68	3,49	3,31
10,33	11,82	10,08	10,25	10,38	10,38	10,46
4,54	4,04	3,90	4,23	4,64	4,65	4,32

MicMa221	MicMa222	MicMa223	MicMa230	MicMa232	MicMa234	MicMa240
0,97	1,06	1,37	0,93	1,01	0,74	0,87
2,53	3,53	8,32	2,29	4,26	0,00	2,77
2,79	3,47	5,52	2,55	3,57	0,00	3,08
1,59	1,74	1,85	1,54	1,75	1,08	1,50
1,77	2,03	2,17	1,83	2,06	1,15	1,60
1,41	1,90	5,79	1,39	1,36	1,15	1,48
1,62	2,32	4,46	1,53	2,24	1,69	2,42
4,76	3,99	4,32	4,04	4,01	3,91	2,84
2,45	4,00	3,99	3,03	2,33	2,08	7,40
2,25	3,64	6,50	3,95	3,17	1,72	2,22
1,56	4,17	5,81	5,17	3,58	1,41	8,78
1,79	1,54	4,27	1,75	1,31	1,20	1,42
0,00	0,00	5,08	0,00	2,82	0,00	0,00
4,64	5,16	6,69	4,83	5,33	3,96	5,02
5,48	4,49	4,53	5,76	4,19	4,96	5,32
3,86	4,22	6,28	3,29	4,52	3,52	4,40
3,86	3,92	4,54	3,76	4,32	3,34	3,76
3,74	1,85	5,23	2,29	4,42	2,87	3,65
3,62	3,67	6,08	3,52	3,73	3,17	3,52
6,00	6,16	6,58	6,46	6,32	7,09	6,97
4,44	4,56	5,44	4,47	4,82	4,19	4,57
1,45	2,06	2,04	1,46	1,90	1,92	1,89
6,78	7,88	7,86	7,11	7,95	6,19	7,21
4,72	5,44	6,14	5,74	5,64	6,04	5,19
3,57	3,62	5,51	3,47	3,65	3,06	3,59
10,10	10,46	10,43	10,32	10,62	10,47	9,18
3,75	4,97	4,48	3,42	4,49	3,85	4,16

MicMa245	MicMa246	MicMa247	MicMa250	MicMa255	MicMa256	MicMa263
0,75	1,06	0,96	1,06	1,06	0,94	1,05
0,00	3,53	2,10	0,76	3,53	3,75	3,30
2,58	3,18	2,95	2,88	3,26	3,24	3,38
1,22	1,66	1,37	1,56	1,68	1,71	1,52
1,33	2,06	1,68	1,89	2,01	1,99	1,83
0,00	2,13	1,44	1,51	3,27	2,02	1,97
1,50	1,93	1,56	2,69	2,46	2,30	2,23
3,16	3,57	3,19	3,68	3,84	3,83	4,40
1,61	2,81	2,02	2,21	2,08	2,60	2,24
1,02	2,20	2,50	1,72	1,96	2,43	1,93
0,00	2,97	2,31	0,00	1,13	2,58	0,00
1,31	1,81	2,27	1,86	1,20	0,94	1,16
0,00	0,00	3,27	0,00	3,53	0,00	0,00
4,42	5,07	4,70	4,91	4,96	5,10	4,91
4,30	4,28	4,42	4,39	3,32	3,53	3,80
3,43	0,00	3,92	3,42	3,83	3,71	4,02
3,38	3,68	3,44	3,74	3,71	3,84	3,53
4,16	0,00	3,97	3,56	1,02	2,81	4,64
2,99	3,92	3,42	3,65	3,56	3,80	3,42
5,48	7,63	5,76	6,22	7,61	6,90	6,91
4,17	5,46	4,73	4,53	4,64	5,17	4,35
1,38	0,76	1,53	1,80	2,08	2,18	1,57
7,01	7,37	7,08	7,27	7,67	7,58	7,34
4,89	5,33	5,44	5,94	5,82	6,47	5,49
3,12	3,55	3,56	3,44	3,56	3,65	3,43
9,97	10,07	10,31	9,91	9,92	10,56	10,01
4,17	3,90	4,43	3,42	4,14	4,79	3,35

MicMa264	MicMa267	MicMa269	MicMa270	MicMa275	MicMa277	MicMa281
0,88	0,78	0,93	1,06	1,07	0,78	0,92
0,00	0,00	0,24	3,09	3,13	5,30	0,00
3,14	2,97	2,73	3,49	3,09	3,76	3,08
1,49	1,38	1,58	1,65	1,58	1,28	1,40
1,83	1,66	2,05	2,13	2,03	1,55	1,68
1,71	1,26	1,51	2,19	2,03	3,09	1,04
2,31	1,96	1,86	2,23	2,19	1,56	1,79
2,95	3,02	3,28	3,26	4,06	3,47	3,05
2,14	2,66	2,23	2,20	4,40	1,91	2,87
2,00	1,62	1,94	2,09	2,15	5,03	2,34
0,00	1,02	1,41	2,99	2,90	3,26	2,05
1,88	0,76	2,05	1,78	1,64	0,76	2,22
3,79	0,00	0,00	0,00	0,00	3,65	0,00
4,80	4,68	5,08	5,19	5,24	4,51	4,72
4,66	3,81	4,52	4,77	4,78	3,99	3,63
3,98	2,72	3,19	4,24	4,45	3,95	4,13
3,65	3,60	3,60	3,98	3,92	3,54	3,53
4,27	0,00	3,38	0,00	4,15	3,57	4,89
3,29	3,47	3,70	3,70	3,70	3,42	3,38
5,91	6,24	6,04	6,73	6,24	5,69	5,20
4,66	4,85	4,08	4,86	5,00	4,42	4,03
1,54	1,37	1,42	1,53	2,16	1,74	1,42
6,69	7,14	7,27	7,51	7,31	7,16	6,72
5,59	5,52	5,43	5,34	5,83	5,95	5,06
3,32	3,20	3,47	3,63	3,64	3,11	3,35
9,32	9,17	9,29	9,70	9,67	9,11	8,74
3,54	3,83	4,14	5,08	4,45	4,48	4,12

MicMa283	MicMa285	MicMa293	MicMa298	MicMa300	MicMa301	MicMa308
0,70	0,93	0,91	0,97	0,99	3,66	0,94
3,65	0,00	2,71	3,53	6,28	7,80	0,00
3,07	2,96	2,73	2,65	4,45	5,02	2,77
1,61	1,63	1,56	1,15	1,58	2,08	1,59
1,97	1,93	1,91	1,15	1,69	2,01	1,77
1,35	1,33	1,45	1,75	4,85	5,05	1,04
2,37	1,89	1,82	1,68	1,71	2,86	1,31
3,12	3,11	5,05	3,10	3,17	3,28	4,29
2,23	4,30	2,00	5,03	4,75	3,07	2,11
4,51	2,02	1,05	2,42	3,91	4,84	2,20
1,18	2,17	1,33	2,57	4,21	5,38	2,11
1,34	2,16	1,92	1,40	1,43	2,68	1,24
0,00	0,00	0,00	0,00	0,00	4,79	0,00
4,97	5,02	5,03	3,88	5,12	5,02	4,77
4,15	4,36	5,17	4,56	4,22	6,35	3,74
4,01	3,76	3,70	3,82	4,45	3,97	3,97
3,74	3,78	3,55	3,72	3,66	5,13	3,63
4,51	3,24	3,99	2,74	4,35	5,13	4,37
3,59	3,54	3,49	3,49	3,65	6,82	3,54
6,86	6,01	6,36	5,71	6,32	6,64	6,95
4,83	4,41	5,07	4,87	4,23	4,96	2,23
1,51	1,64	1,65	0,78	1,59	1,93	2,21
7,36	7,44	7,24	5,40	7,35	7,10	7,12
5,33	5,33	5,38	5,20	5,54	5,36	6,20
3,36	3,40	3,44	3,09	3,33	5,81	5,27
9,84	8,81	9,94	10,21	10,14	9,37	10,25
4,05	4,35	4,04	4,01	4,38	3,94	4,62

MicMa309	MicMa314	MicMa318	MicMa321	MicMa330	MicMa334	MicMa335
1,08	1,65	1,21	1,02	0,79	0,87	0,83
2,77	3,94	3,48	1,87	0,00	0,00	0,00
3,19	3,55	3,06	3,17	3,24	3,30	3,27
1,75	1,65	1,64	1,54	1,81	1,72	1,79
2,07	2,06	1,81	1,83	2,26	2,12	2,21
2,12	3,03	4,22	1,95	1,94	1,64	2,30
2,07	2,24	1,85	1,67	2,28	1,57	1,77
3,52	7,39	7,46	6,40	3,61	4,05	3,47
2,31	3,01	4,39	2,38	2,40	2,67	2,86
2,34	2,10	1,93	2,05	2,92	2,62	2,54
2,40	2,87	1,13	1,96	0,00	2,54	1,06
1,99	1,69	1,57	1,70	2,41	1,73	1,99
0,00	3,42	3,40	0,00	1,94	3,09	2,88
5,25	5,19	4,99	5,04	5,12	5,14	5,12
4,55	4,64	4,96	4,26	3,86	3,63	3,87
3,86	4,21	3,88	3,73	3,54	4,39	3,90
3,92	4,00	3,53	3,74	3,61	3,62	3,51
4,10	4,26	3,50	4,48	4,58	3,96	4,54
3,84	3,60	3,70	3,42	3,93	3,53	3,68
7,18	5,81	6,64	5,95	6,50	5,93	5,53
5,05	5,21	7,12	5,48	4,91	4,72	4,47
1,68	3,62	2,05	1,77	1,59	1,83	1,66
7,68	7,61	7,55	7,60	7,44	7,02	7,21
5,77	6,35	6,06	5,90	5,36	5,80	5,05
3,94	3,68	3,55	3,40	3,76	3,55	3,74
10,32	9,18	10,22	9,94	9,33	9,78	9,37
4,68	4,32	3,55	4,38	3,65	4,48	4,00

MicMa338	MicMa341	MicMa355	MicMa357	MicMa359	MicMa363	MicMa371
1,12	0,97	0,90	0,97	0,69	0,85	0,75
4,20	0,00	0,00	0,00	0,00	0,00	0,00
3,53	3,40	3,12	3,08	2,92	3,03	3,37
1,95	1,88	1,72	1,62	1,41	1,46	1,78
2,26	2,36	2,39	2,18	1,89	1,79	2,28
2,39	2,23	2,03	2,22	1,70	1,58	2,89
2,28	1,96	2,06	1,99	1,94	2,03	1,98
6,15	6,30	4,69	4,69	3,90	4,24	3,59
2,95	2,85	2,30	1,91	3,44	4,77	2,33
2,79	2,58	2,21	3,31	2,53	2,35	2,01
2,29	2,06	2,64	2,47	1,88	1,16	2,95
1,77	2,02	2,13	1,61	1,02	1,24	1,77
3,15	3,36	2,73	2,87	2,70	0,00	3,58
5,42	5,40	5,03	5,16	4,67	4,97	5,32
4,63	4,77	4,82	4,46	4,96	4,41	4,73
4,68	4,21	3,60	3,73	3,01	4,02	4,23
4,06	3,64	3,62	3,38	3,24	2,96	4,06
0,00	1,66	3,60	3,04	2,43	3,86	4,11
4,03	3,99	3,63	3,74	6,22	3,53	3,76
6,22	5,33	7,01	6,12	6,09	5,76	6,46
5,31	5,23	4,72	4,43	5,16	4,99	5,41
2,90	1,69	1,82	2,63	2,07	1,52	2,14
7,70	7,70	7,12	7,30	6,90	7,53	7,42
6,47	5,27	6,53	6,34	5,51	5,74	5,22
3,95	3,89	3,62	3,66	3,56	3,46	3,70
9,90	10,15	9,74	10,07	9,47	9,19	9,73
4,55	4,16	4,92	4,51	4,52	4,12	4,81

MicMa388	MicMa391	MicMa406	MicMa430	MicMa436	MicMa451	MicMa457
1,20	0,83	0,92	0,84	1,33	0,85	1,10
0,00	0,00	0,00	0,00	5,64	0,00	0,00
3,43	3,29	3,81	3,48	4,17	2,78	3,22
2,20	1,75	1,75	1,80	1,77	1,55	1,79
2,67	2,14	2,10	2,20	2,14	2,00	2,36
2,07	1,93	2,12	1,71	3,50	1,77	2,04
2,45	1,94	2,11	2,18	2,36	1,66	2,44
3,48	3,49	3,45	3,57	4,16	4,62	3,57
2,50	3,71	2,88	2,77	4,21	2,57	2,36
2,49	2,56	2,58	2,16	2,62	2,35	2,09
0,00	2,41	0,00	2,08	1,93	2,42	1,46
2,58	1,14	1,18	2,05	1,85	1,44	1,67
3,78	3,05	3,62	3,49	4,28	2,13	3,31
5,33	5,23	5,22	5,17	5,01	4,83	5,26
4,42	3,36	4,27	4,57	5,60	4,04	5,07
4,70	3,93	4,04	3,55	4,03	3,73	3,91
4,23	3,49	3,51	3,49	3,66	3,74	3,68
4,06	3,59	4,51	3,67	4,03	0,00	2,68
4,57	3,61	3,70	3,87	3,93	3,53	3,90
5,78	5,84	5,77	5,42	6,10	5,67	5,93
5,48	4,75	4,74	4,45	4,27	5,20	6,07
1,75	1,76	1,70	1,77	2,02	1,90	1,84
7,55	7,71	7,55	7,27	7,38	6,93	7,43
5,70	5,50	5,62	5,63	6,00	5,79	5,94
4,14	3,71	3,59	3,56	3,87	3,88	3,85
10,46	9,58	10,16	9,90	10,27	10,02	10,32
4,11	4,56	4,29	4,52	4,55	4,59	4,03

MicMa470	MicMa476	MicMa480	MicMa488	MicMa493	MicMa539	MicMa570
0,83	0,96	1,01	1,02	1,93	2,07	0,57
0,00	6,83	0,00	0,00	4,96	4,68	5,09
3,33	4,37	3,05	3,18	3,38	3,59	4,44
1,63	1,82	1,81	1,70	1,65	2,15	1,56
1,93	2,26	2,06	1,99	2,21	2,30	2,03
1,27	4,29	2,34	2,07	3,76	2,57	4,40
2,08	2,06	2,41	2,13	1,98	2,44	2,11
3,88	4,57	3,77	3,60	3,82	3,81	3,71
2,06	2,43	2,19	4,23	2,13	2,54	3,18
2,49	4,74	3,24	2,89	2,44	2,32	4,77
1,93	4,51	1,63	0,90	2,26	3,38	4,87
0,85	1,55	1,10	1,42	0,94	1,53	1,63
2,49	4,01	2,42	2,98	3,69	3,19	3,13
5,03	5,37	4,92	5,04	5,14	5,51	4,86
4,32	4,45	4,16	4,44	5,37	4,70	4,22
4,11	4,05	4,08	3,86	3,91	4,34	3,74
3,31	3,55	3,43	3,47	3,64	4,45	3,60
3,88	4,17	0,00	4,23	3,77	2,41	4,19
3,63	4,01	3,74	3,85	4,71	4,37	3,72
5,91	5,50	5,74	5,76	5,67	6,24	5,90
4,86	4,74	4,84	4,76	4,21	5,60	4,44
1,81	1,78	2,02	1,91	1,61	2,30	1,62
7,50	7,63	7,43	7,49	7,38	7,79	6,70
5,75	6,04	5,84	5,89	5,61	5,50	5,43
3,54	3,76	3,68	3,73	3,71	4,13	3,81
10,13	10,92	10,44	10,37	8,85	9,99	10,04
4,69	5,23	4,59	4,15	5,10	4,90	4,55

MicMa579	MicMa627	MicMa630	MicMa632	MicMa709	MicMa722	DCTB055	DCTB058
1,16	0,93	1,02	0,99	0,85	1,35	1,71	1,61
4,08	0,00	0,00	5,72	0,00	0,00	5,07	4,77
3,62	3,54	3,35	3,92	3,43	3,51	3,21	3,30
1,97	1,68	1,79	1,65	1,77	2,06	2,19	2,17
2,38	2,21	2,29	2,01	2,14	2,58	2,68	2,61
1,50	1,94	1,89	3,25	1,64	2,53	2,67	2,57
3,59	2,48	2,52	2,13	2,17	3,05	2,18	2,51
3,69	4,81	4,49	3,87	4,57	4,35	3,89	3,81
2,56	2,22	2,36	3,76	2,33	3,12	2,89	3,04
4,60	1,56	2,54	2,95	1,89	3,07	3,08	2,46
3,09	1,83	1,21	3,50	1,16	4,12	3,87	3,18
1,92	1,44	1,83	1,50	2,09	1,99	2,64	2,50
3,52	3,38	3,63	3,31	2,63	3,45	0,00	0,00
5,46	5,27	5,28	5,15	5,21	5,56	5,44	5,74
3,29	4,17	5,03	4,39	4,28	4,98	4,81	4,42
4,19	4,12	4,00	4,06	3,82	4,50	4,30	4,59
3,59	3,58	3,60	3,36	3,57	3,84	4,57	4,49
4,31	4,52	4,46	4,48	1,76	4,17	2,74	3,36
4,40	3,75	3,84	3,71	3,78	4,30	4,89	4,76
5,89	5,89	5,79	5,51	5,99	5,86	6,72	6,29
5,19	5,10	4,87	4,63	4,59	5,44	4,24	3,98
1,54	1,78	1,93	1,77	1,89	2,54	2,19	2,66
7,88	7,79	7,38	7,33	7,40	7,94	6,63	7,02
4,96	6,19	6,19	5,31	6,12	6,44	5,62	5,40
4,47	3,72	3,78	3,60	3,66	4,03	9,47	9,10
9,12	10,37	10,94	9,93	10,55	10,17	4,41	4,59
4,66	4,30	4,10	4,79	4,42	6,27	4,61	4,27

DCTB074	DCTB084	DCTB087	DCTB094	DCTB117	DCTB127	DCTB128	DCTB133	DCTB152
1,54	1,47	1,56	1,68	1,75	2,30	1,64	1,60	1,50
4,88	4,94	4,65	5,04	5,80	6,10	4,85	4,70	4,69
3,34	3,35	3,10	3,41	3,49	3,62	3,28	3,22	3,33
2,15	1,97	2,06	2,21	2,27	2,32	2,20	2,16	2,17
2,60	2,51	2,56	2,64	2,82	3,30	2,80	2,56	2,62
2,41	2,25	2,33	2,76	2,69	3,49	2,57	2,55	2,32
2,83	2,45	2,44	2,68	2,54	3,03	2,51	2,62	2,25
3,91	3,60	3,71	4,00	3,96	4,14	3,93	3,73	3,72
2,92	2,61	2,55	3,23	3,11	3,41	3,00	2,71	2,89
2,35	3,70	2,79	2,83	2,74	3,90	2,65	2,51	2,70
2,82	2,82	3,68	3,45	3,25	3,92	2,93	3,41	3,57
2,01	1,93	2,07	2,48	2,45	2,83	2,43	2,10	2,13
0,00	0,00	0,00	0,00	0,00	3,20	0,00	0,00	0,00
5,80	5,58	5,49	5,94	5,71	5,37	5,61	5,61	5,68
5,35	4,71	5,11	5,07	4,65	4,90	5,03	4,60	4,99
4,44	4,26	4,10	4,93	4,33	4,78	4,22	4,30	3,96
4,37	4,25	4,34	4,64	4,84	5,01	4,39	4,32	4,20
2,95	2,83	2,89	3,37	3,26	3,97	3,10	2,63	3,03
4,43	4,44	4,64	4,87	4,98	5,79	4,96	4,63	4,55
7,04	5,93	6,41	6,51	6,57	5,92	6,34	6,67	7,16
3,87	3,74	4,21	4,17	4,13	4,73	4,26	3,85	3,91
2,16	2,17	2,08	2,23	2,27	2,96	2,09	2,00	1,85
8,02	7,16	6,66	7,47	7,40	5,92	7,22	7,47	7,59
6,08	5,79	5,44	5,14	5,02	4,67	5,32	5,68	5,62
9,35	9,31	8,95	9,31	9,20	8,24	9,52	9,65	9,75
4,14	4,23	4,30	4,56	4,62	5,17	4,47	4,29	4,26
4,19	4,06	4,90	4,59	4,14	3,92	4,13	4,40	4,27

DCTB155	DCTB156	DCTB157	DCTB158	DCTB199	DCTB201	DCTB202	DCTB203	DCTB223
1,77	1,53	1,56	3,27	1,39	1,59	1,44	2,03	1,41
4,78	4,74	4,81	4,71	4,39	4,74	4,47	5,52	4,39
3,36	3,00	2,35	3,41	3,03	3,23	2,40	3,22	3,19
2,17	2,06	1,60	2,24	1,91	2,11	1,92	2,10	2,04
2,68	2,51	2,42	2,62	2,46	2,60	2,28	2,70	2,50
2,51	2,36	2,56	2,71	2,19	2,36	2,50	2,48	2,24
2,39	2,64	2,46	2,62	2,46	2,60	2,72	2,72	2,18
3,91	3,73	3,37	3,89	3,59	3,73	3,79	3,87	3,65
2,95	2,52	2,47	2,86	2,41	2,51	2,76	2,72	2,59
2,44	5,07	2,70	2,63	2,25	2,73	2,06	2,72	2,01
3,26	6,29	2,66	3,60	3,45	3,81	3,41	3,78	3,45
2,45	2,13	2,65	2,46	2,15	2,25	2,70	2,62	2,02
0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5,71	5,28	4,05	5,68	5,37	5,52	4,95	5,38	5,59
4,81	4,37	3,79	4,96	5,80	4,85	5,05	5,05	5,09
4,52	4,19	4,07	4,31	4,04	4,11	3,81	4,30	4,30
4,57	4,27	4,47	4,51	4,29	4,44	4,39	4,51	4,13
3,13	2,97	2,66	2,93	2,78	3,10	2,14	2,90	2,23
4,65	4,58	4,62	4,70	4,38	4,60	3,99	4,71	4,37
6,96	6,12	6,96	6,88	6,74	6,81	8,55	6,74	6,17
3,87	3,84	3,81	3,90	3,84	3,94	3,89	4,12	3,74
2,47	2,02	2,30	2,13	1,86	2,03	1,92	2,18	2,03
7,33	7,04	4,72	7,80	6,30	7,26	5,98	6,94	7,14
5,34	5,18	4,70	5,39	5,48	5,47	6,01	5,89	5,41
9,02	8,98	8,50	9,16	9,43	9,41	8,59	8,91	9,13
4,49	4,17	4,31	4,52	4,09	4,32	4,11	4,54	4,20
4,07	4,16	2,70	4,61	4,59	4,83	4,00	4,79	4,33

DCTB229	DCTB235	DCTB237	DCTB258	DCTB264	DCTB293	DCTB302	DCTB383
1,56	1,69	1,50	1,61	1,95	2,57	1,68	1,74
4,62	4,42	4,82	4,76	5,40	6,46	5,03	5,07
3,07	3,41	3,42	3,41	3,51	4,09	3,41	3,68
2,05	2,14	2,07	2,17	2,40	2,95	2,25	2,29
2,40	2,35	2,42	2,69	2,75	3,40	2,67	2,75
2,38	2,27	2,25	2,53	2,89	3,33	2,72	2,73
2,51	2,19	2,54	2,75	3,07	3,90	2,77	3,60
3,67	3,50	3,77	3,91	4,14	4,78	4,15	3,99
2,62	2,65	3,28	3,07	3,46	3,87	3,97	4,18
2,06	2,15	2,89	2,70	3,18	4,49	2,86	3,18
2,98	3,22	4,10	3,58	4,95	4,97	3,42	4,99
2,06	2,06	2,30	2,34	2,92	3,85	2,46	2,42
0,00	1,49	0,00	0,00	0,00	4,11	0,00	3,15
5,60	5,77	5,83	5,70	6,01	6,06	5,69	6,83
3,94	4,44	5,34	4,94	5,19	5,60	5,00	6,46
4,16	4,49	4,98	4,51	4,97	5,08	4,51	5,93
4,22	4,20	4,78	4,60	4,92	5,60	4,71	4,86
2,65	4,36	3,52	3,25	3,81	4,34	4,27	5,60
4,69	4,45	4,45	4,70	4,87	5,69	4,82	4,85
6,83	6,59	6,87	7,58	7,39	7,16	7,27	7,44
3,89	3,81	3,97	3,59	4,36	4,87	4,28	4,21
2,06	2,03	2,94	2,24	2,93	2,76	2,36	3,77
7,31	8,15	7,17	7,83	7,71	7,76	7,58	7,74
5,76	6,84	5,81	5,74	6,35	5,82	5,49	6,13
9,37	10,41	9,35	9,60	9,07	9,32	9,21	9,74
4,22	4,19	4,31	4,19	4,68	5,45	4,63	4,56
4,18	4,78	4,63	4,98	4,55	4,81	4,07	5,47

Supplementary Table 8: Cytokines levels natural log transformation (pg/mL) in the MicMa and the D

	MicMa002	MicMa003	MicMa004	MicMa006	MicMa009	MicMa010
IL1B	1,13	1,04	1,13	0,97	1,00	1,57
IL1RA	3,23	0,00	3,30	0,00	0,00	4,79
IL2	3,53	3,14	2,78	3,05	3,50	3,87
IL4	1,94	1,60	1,92	1,73	1,86	2,16
IL5	2,09	1,82	2,08	1,82	2,05	2,43
IL6	2,42	1,25	1,87	2,05	1,61	3,26
IL7	2,34	1,98	2,08	2,13	2,60	2,29
IL8	4,88	3,49	3,61	3,64	3,65	4,65
IL9	2,92	2,33	2,47	3,94	2,23	3,44
IL10	2,97	2,34	2,58	2,04	2,60	2,78
IL12	2,78	0,00	1,91	0,31	2,22	4,01
IL13	2,72	1,99	2,03	1,23	1,33	2,84
IL15	0,28	3,36	0,00	3,16	3,98	3,67
IL17	5,18	4,71	5,22	5,09	5,29	5,76
Eotaxin	4,58	4,64	4,18	4,40	4,59	5,19
FGF	4,19	4,01	4,12	3,92	4,36	5,66
G_CSF	3,81	3,31	3,28	3,30	3,41	5,67
GM_CSF	3,99	0,88	4,71	0,00	4,91	4,88
IFNG	3,91	3,67	3,97	3,64	3,66	4,20
IP10	5,96	5,94	5,95	6,18	5,91	7,52
MCP1	5,79	5,26	4,83	5,37	5,52	4,66
MIP1a	2,90	1,53	1,63	1,56	1,73	3,45
PDGF	7,55	7,00	7,52	7,56	7,75	7,80
MIP1b	6,42	4,98	5,74	5,69	5,84	6,88
TNFa	3,85	3,50	3,62	3,75	3,72	3,67
RANTES	9,40	9,27	10,03	8,82	10,35	9,64
VEGF	4,58	3,70	4,63	3,99	5,02	4,80

CTB cohorts

MicMa019	MicMa020	MicMa022	MicMa023	MicMa024	MicMa028	MicMa031
1,30	1,33	1,15	1,63	0,87	2,51	2,24
3,47	6,53	3,00	6,39	2,71	4,80	2,91
3,65	4,33	3,29	4,04	3,54	2,93	3,31
1,93	1,94	1,95	1,86	2,08	1,89	2,00
2,06	2,24	2,13	1,98	2,17	2,01	2,13
2,15	4,27	2,29	4,48	2,02	2,19	2,44
2,91	2,34	2,41	2,52	2,67	2,14	2,78
3,70	3,74	4,88	5,49	3,74	3,39	7,01
2,53	2,42	2,99	3,60	2,21	2,94	2,42
2,20	4,18	2,67	5,35	2,76	2,30	1,92
4,40	5,13	0,59	5,10	0,42	3,34	2,61
1,61	2,18	1,86	1,82	1,42	1,64	1,53
3,20	4,30	3,02	3,83	2,95	0,00	1,79
5,33	5,36	5,28	5,58	5,45	5,11	5,33
5,21	6,09	4,13	5,49	4,29	4,99	4,19
4,24	4,19	4,27	4,95	4,13	4,47	3,96
3,43	3,73	3,48	3,95	3,58	3,56	3,39
4,23	4,95	4,23	3,14	4,92	3,95	2,93
3,81	3,95	3,84	3,99	3,99	6,11	4,20
6,54	5,88	5,97	5,91	5,74	6,16	5,18
4,65	5,24	6,14	5,39	5,51	4,73	4,67
2,26	2,16	1,69	2,75	1,71	2,14	2,67
7,77	7,67	7,63	7,62	8,02	7,16	7,90
6,30	6,18	5,62	5,64	5,32	6,07	5,96
3,51	3,93	3,61	4,28	3,87	4,99	3,83
9,61	9,70	9,85	9,81	10,51	9,19	9,97
4,50	4,60	4,16	4,41	3,92	4,06	4,99

MicMa034	MicMa042	MicMa044	MicMa051	MicMa052	MicMa053	MicMa055
1,50	1,18	1,17	1,12	0,76	1,05	0,83
7,32	3,99	3,42	5,29	4,53	2,59	0,00
5,59	3,35	3,51	4,31	3,17	3,35	3,06
1,70	1,93	2,27	1,92	1,33	1,77	1,41
2,21	2,10	2,62	2,10	1,37	2,03	1,67
5,20	3,00	1,82	3,05	2,37	2,63	0,90
3,41	2,69	3,63	2,49	1,59	2,43	1,90
6,09	3,20	4,29	3,34	3,93	5,24	2,98
2,31	2,87	3,82	2,10	3,14	4,13	2,42
3,07	2,35	2,38	2,63	3,59	2,07	2,37
1,96	2,79	3,91	2,33	2,55	1,01	1,12
2,79	0,93	3,24	1,56	1,51	1,38	1,18
0,00	3,36	3,12	4,26	0,00	3,20	3,65
5,19	5,48	5,58	5,12	4,37	5,26	4,79
4,45	3,71	5,54	4,65	4,35	3,83	3,52
3,81	4,38	4,87	4,27	3,72	3,66	4,24
3,58	4,06	4,45	3,43	2,70	3,30	3,03
2,21	4,26	3,75	4,27	4,81	4,62	5,23
4,10	3,96	4,21	3,91	3,22	3,68	3,27
5,55	6,14	6,56	5,28	5,93	6,51	6,16
4,57	3,92	5,47	4,79	4,70	4,14	4,29
2,37	1,83	2,58	1,59	1,54	1,53	1,60
7,25	7,96	7,60	7,74	7,43	7,72	6,98
5,73	5,50	6,05	5,51	6,12	6,11	5,28
3,56	3,97	5,58	3,85	3,24	4,83	3,38
9,63	9,86	9,24	10,02	9,54	10,23	8,12
4,29	4,87	4,62	4,40	3,93	4,79	4,62

MicMa057	MicMa064	MicMa065	MicMa067	MicMa068	MicMa069	MicMa071
1,03	1,02	2,50	1,14	0,85	0,88	0,89
2,91	0,00	5,20	9,97	0,00	0,00	4,63
3,45	3,38	4,33	6,83	1,97	0,00	3,23
1,87	1,80	2,50	1,85	1,44	1,37	1,64
2,15	2,03	1,84	2,23	1,79	1,66	2,02
2,10	1,48	3,71	6,39	1,54	1,60	2,83
2,33	2,36	2,17	4,16	1,57	1,97	1,54
3,44	3,24	3,67	3,57	3,24	3,24	3,56
2,40	2,57	2,47	4,63	1,60	3,21	3,81
2,57	2,20	2,16	7,12	1,74	1,51	2,52
2,26	4,59	0,10	7,28	0,00	0,00	1,68
1,96	1,64	1,82	4,64	1,51	1,19	2,15
3,57	3,75	4,06	3,25	0,00	0,00	0,00
5,49	5,29	5,27	5,43	4,62	4,07	4,78
4,80	4,00	5,27	4,10	3,86	3,28	4,00
4,27	4,26	4,67	4,91	3,62	3,30	3,78
3,53	3,25	4,48	3,52	2,97	2,93	3,43
4,12	4,47	4,28	4,07	3,91	0,00	4,29
3,76	3,76	5,24	4,94	3,39	3,46	3,76
5,57	6,11	5,91	6,03	5,92	6,86	6,78
5,25	4,21	5,04	4,36	4,34	3,97	3,82
1,70	1,67	2,22	1,86	1,64	0,96	1,97
7,85	7,31	7,03	7,58	6,60	6,22	7,21
5,48	5,29	5,41	5,58	5,95	5,95	5,89
3,84	3,72	4,48	4,25	3,14	3,34	3,59
9,67	9,30	9,31	10,03	9,66	9,74	9,44
4,99	4,21	3,86	4,67	3,73	3,68	4,26

MicMa085	MicMa086	MicMa088	MicMa089	MicMa091	MicMa092	MicMa093
1,06	1,15	0,92	1,00	0,86	1,90	0,84
8,34	5,36	2,56	2,21	0,00	5,51	2,50
6,22	4,40	3,45	2,64	3,67	3,71	2,21
1,89	1,84	1,84	1,50	1,73	2,02	1,51
2,03	2,24	2,04	1,61	1,92	2,06	1,91
6,34	3,09	3,06	1,09	0,00	3,33	2,15
5,83	3,00	2,80	1,57	1,86	2,74	2,03
3,13	3,60	3,40	3,08	3,65	4,08	3,68
2,58	2,69	2,55	2,03	2,86	6,46	3,19
6,91	3,16	2,45	0,91	2,27	2,74	1,95
5,33	4,05	2,03	1,92	2,01	4,17	3,23
5,31	2,21	1,06	1,57	1,95	1,62	2,42
3,21	3,31	3,56	0,00	2,44	3,83	0,00
5,16	5,21	5,06	4,71	4,94	5,58	4,84
2,50	4,43	3,64	4,49	4,68	5,34	5,02
4,04	3,97	4,06	3,61	3,65	4,81	4,31
3,17	3,83	3,80	3,59	3,50	4,24	3,96
4,06	1,22	4,34	3,93	3,93	5,44	4,54
3,72	4,04	3,70	3,26	3,82	4,75	3,90
6,20	6,50	6,45	5,53	6,41	6,12	6,62
4,79	5,06	4,27	4,16	4,57	5,59	4,77
1,41	1,77	1,67	1,77	1,80	2,34	2,64
7,72	7,69	8,02	7,10	7,43	7,63	6,84
5,23	6,04	5,58	5,12	5,60	5,34	6,25
3,84	3,81	3,70	3,52	3,48	4,60	3,81
9,91	11,82	11,01	10,56	8,52	10,56	9,29
5,14	4,01	4,84	4,61	4,76	4,08	4,60

MicMa098	MicMa100	MicMa101	MicMa106	MicMa107	MicMa108	MicMa112
0,82	1,03	0,92	1,35	1,53	0,90	1,61
0,00	3,44	3,52	4,74	4,86	0,00	4,35
2,79	3,58	2,72	3,27	3,63	3,39	3,47
1,62	1,80	1,47	1,81	2,40	1,81	1,91
1,94	1,98	1,84	2,04	2,04	1,92	2,08
2,14	1,95	0,00	2,44	2,39	0,48	1,68
2,30	2,45	2,53	2,72	2,59	2,56	3,30
3,71	3,39	4,54	3,54	3,30	3,23	3,50
2,95	2,17	3,05	2,54	3,10	2,15	2,34
1,92	1,43	3,19	2,59	3,25	2,34	2,25
1,48	1,19	2,78	0,55	3,37	1,85	0,00
1,97	1,90	2,46	1,33	1,83	1,01	1,37
3,18	3,64	0,00	0,00	3,76	3,71	3,41
4,76	5,12	4,78	5,14	5,20	5,12	5,29
5,73	4,55	4,81	4,68	3,98	5,14	4,83
3,81	3,79	3,71	4,10	3,99	4,17	4,42
3,51	3,45	3,49	3,57	3,86	3,45	3,50
3,60	4,03	3,62	3,76	3,85	4,70	4,34
3,67	3,75	3,64	3,99	5,07	3,76	4,32
6,93	7,09	6,71	6,55	5,99	5,74	5,99
5,08	5,02	4,22	4,21	4,63	3,52	4,37
2,20	1,95	2,87	1,75	1,64	1,61	1,79
7,16	7,28	7,20	7,83	7,76	7,63	8,24
6,12	6,00	6,34	5,86	5,58	5,73	5,32
3,49	3,45	3,00	3,67	4,14	3,57	3,99
11,28	11,35	11,82	11,82	11,82	11,82	11,82
4,71	4,21	4,52	4,24	4,91	5,09	4,58

MicMa119	MicMa122	MicMa130	MicMa132	MicMa137	MicMa139	MicMa140
1,21	0,96	0,78	1,78	1,46	0,82	1,24
3,95	0,00	0,00	5,48	3,99	0,00	4,00
3,81	3,01	2,50	2,29	3,44	2,68	3,73
1,81	1,73	1,76	1,66	2,80	1,72	1,84
2,11	1,83	1,96	1,73	2,84	2,10	2,11
3,08	1,72	0,27	2,69	2,08	1,21	2,28
2,45	1,58	2,19	2,30	3,48	1,89	2,85
3,82	6,05	3,38	3,40	3,03	3,28	3,75
3,08	2,42	2,13	3,67	1,56	1,58	3,00
3,88	2,37	1,54	2,03	3,03	1,58	2,09
3,98	1,82	0,00	2,60	1,40	0,00	3,13
1,74	1,04	1,68	2,04	3,26	1,44	2,23
2,78	0,00	0,00	0,00	3,18	0,00	3,41
4,94	4,77	5,13	4,65	4,58	5,03	5,34
5,45	4,50	4,18	5,24	4,16	4,46	4,48
3,65	3,79	2,96	3,95	4,36	3,08	4,90
3,79	3,45	3,66	3,75	5,20	3,45	4,27
1,44	2,04	4,20	4,00	4,21	0,00	4,59
4,12	3,57	3,64	4,63	5,65	3,57	4,16
6,49	5,84	5,85	6,80	6,56	6,51	6,84
5,30	3,80	4,68	5,41	5,57	4,08	4,61
2,59	1,61	1,48	1,80	1,70	1,66	2,65
7,72	7,19	7,24	7,03	7,09	7,24	7,50
5,69	5,86	5,55	5,90	5,23	4,78	5,50
3,64	3,40	3,53	4,59	4,66	3,34	3,81
10,78	10,72	8,85	11,82	9,65	10,98	9,87
5,01	4,30	4,20	4,47	4,32	4,01	4,18

MicMa146	MicMa148	MicMa150	MicMa157	MicMa163	MicMa165	MicMa167
1,05	1,10	0,59	0,82	0,74	0,95	0,76
3,41	1,67	0,00	2,97	0,00	3,44	2,50
2,90	2,95	1,39	3,21	2,98	2,93	0,00
1,72	1,66	1,23	1,79	1,59	1,73	1,33
2,01	1,88	1,43	2,01	1,69	1,90	1,48
2,31	2,81	0,88	2,26	1,28	1,75	1,35
1,65	1,98	2,01	2,23	2,29	2,20	1,77
5,27	7,15	3,69	3,42	3,14	4,17	3,70
2,71	2,22	1,28	1,80	2,78	2,33	2,25
1,69	1,36	1,45	0,83	1,95	3,65	4,99
0,72	4,21	0,00	0,00	0,37	3,66	3,63
1,57	0,64	1,25	1,29	1,16	1,94	1,06
0,00	0,00	0,00	1,73	0,00	0,00	0,00
4,98	5,01	4,27	5,07	4,83	4,71	4,63
5,27	4,55	4,58	4,92	3,48	5,41	5,45
3,25	4,30	3,47	3,74	3,98	3,26	4,75
3,55	3,69	3,15	3,70	3,23	3,39	3,18
0,00	2,37	4,20	3,91	0,00	3,79	0,00
3,67	3,53	2,98	3,73	3,60	3,97	3,23
6,96	6,87	6,11	5,81	6,47	6,53	6,08
4,06	4,82	4,79	5,03	4,85	4,86	4,58
2,83	2,32	1,81	1,79	1,42	2,20	2,12
7,43	7,60	6,70	7,78	7,22	6,93	7,02
6,19	6,13	5,79	5,69	5,87	6,38	5,58
3,57	3,48	2,96	3,36	3,34	3,62	3,06
11,82	11,82	11,82	10,43	11,82	11,82	11,82
4,81	4,42	4,24	4,47	4,78	4,19	4,93

MicMa169	MicMa171	MicMa185	MicMa187	MicMa190	MicMa191	MicMa193
0,77	0,94	0,89	0,71	1,00	1,11	0,64
0,00	0,00	0,00	0,00	0,00	3,52	0,00
2,81	3,17	3,29	2,46	3,29	3,06	1,80
1,40	1,67	1,79	1,37	1,87	1,86	1,38
1,54	1,88	1,93	1,44	2,12	2,12	1,79
1,16	0,81	1,73	2,14	1,52	2,07	0,00
1,58	2,36	2,39	1,97	2,52	2,64	1,55
3,63	3,53	3,37	2,94	3,70	4,77	3,28
2,45	5,30	2,93	1,99	2,22	2,19	0,77
2,42	1,54	1,36	1,40	2,01	3,13	0,51
1,48	1,19	0,00	0,00	0,00	3,35	0,00
0,83	1,78	1,16	1,67	2,53	2,00	1,21
0,78	3,09	2,93	0,00	3,35	2,59	0,00
4,50	4,87	5,11	4,65	5,22	5,22	4,51
3,37	4,80	4,04	4,39	4,42	5,09	4,84
3,66	3,82	3,47	3,95	3,47	3,99	0,00
2,98	3,37	3,48	3,55	3,56	3,43	3,09
4,21	2,62	3,96	3,83	4,45	3,60	1,66
3,42	3,97	3,86	3,40	3,76	3,92	3,42
6,14	6,05	6,56	6,00	6,97	7,51	6,75
4,33	4,83	5,01	4,21	5,11	4,41	4,18
2,22	1,69	1,52	2,27	1,65	2,57	1,12
6,97	7,28	7,74	7,03	7,62	7,66	6,55
6,02	5,83	4,93	4,92	5,77	6,08	5,00
3,37	3,46	3,58	3,12	3,55	3,73	3,19
10,62	11,82	11,82	11,28	11,82	11,82	9,05
3,76	4,85	4,33	4,08	3,71	5,66	2,91

MicMa197	MicMa201	MicMa209	MicMa210	MicMa212	MicMa218	MicMa220
0,64	0,49	0,97	1,12	1,04	1,10	0,91
0,00	4,83	3,45	6,95	6,20	3,94	0,00
2,41	2,50	3,13	5,01	4,38	3,50	2,63
1,38	1,31	1,71	1,69	1,74	1,70	1,41
1,57	1,09	2,21	1,96	1,72	1,69	1,55
0,00	0,81	1,69	3,74	3,86	1,87	1,84
1,29	0,92	1,50	3,67	2,18	1,97	2,46
3,28	4,83	3,58	3,50	4,82	4,31	4,45
0,67	2,07	2,75	2,93	4,21	2,22	2,13
1,66	0,41	1,96	6,49	5,08	2,46	1,72
0,26	0,00	0,00	5,38	4,60	2,11	1,91
1,44	0,24	2,05	2,33	2,82	1,08	1,12
0,00	0,00	0,00	4,05	3,72	0,00	3,09
4,35	4,06	5,28	5,22	5,03	4,93	4,59
4,17	4,50	5,13	3,86	4,85	3,68	4,10
3,32	3,81	3,70	4,60	4,00	4,08	4,01
3,05	3,12	4,01	3,85	3,93	4,31	3,45
4,21	3,55	2,97	4,13	3,44	4,40	4,54
3,16	3,98	3,63	4,38	3,78	3,70	3,33
6,20	6,15	6,43	5,97	5,89	6,14	6,71
4,40	4,81	4,49	4,85	4,94	4,87	5,48
1,90	2,32	1,78	1,49	1,92	2,03	1,86
6,67	6,79	7,47	7,73	7,27	7,43	7,31
5,25	6,86	5,88	4,94	5,81	5,56	5,88
3,22	3,86	3,59	3,89	3,68	3,49	3,31
10,33	11,82	10,08	10,25	10,38	10,38	10,46
4,54	4,04	3,90	4,23	4,64	4,65	4,32

MicMa221	MicMa222	MicMa223	MicMa230	MicMa232	MicMa234	MicMa240
0,97	1,06	1,37	0,93	1,01	0,74	0,87
2,53	3,53	8,32	2,29	4,26	0,00	2,77
2,79	3,47	5,52	2,55	3,57	0,00	3,08
1,59	1,74	1,85	1,54	1,75	1,08	1,50
1,77	2,03	2,17	1,83	2,06	1,15	1,60
1,41	1,90	5,79	1,39	1,36	1,15	1,48
1,62	2,32	4,46	1,53	2,24	1,69	2,42
4,76	3,99	4,32	4,04	4,01	3,91	2,84
2,45	4,00	3,99	3,03	2,33	2,08	7,40
2,25	3,64	6,50	3,95	3,17	1,72	2,22
1,56	4,17	5,81	5,17	3,58	1,41	8,78
1,79	1,54	4,27	1,75	1,31	1,20	1,42
0,00	0,00	5,08	0,00	2,82	0,00	0,00
4,64	5,16	6,69	4,83	5,33	3,96	5,02
5,48	4,49	4,53	5,76	4,19	4,96	5,32
3,86	4,22	6,28	3,29	4,52	3,52	4,40
3,86	3,92	4,54	3,76	4,32	3,34	3,76
3,74	1,85	5,23	2,29	4,42	2,87	3,65
3,62	3,67	6,08	3,52	3,73	3,17	3,52
6,00	6,16	6,58	6,46	6,32	7,09	6,97
4,44	4,56	5,44	4,47	4,82	4,19	4,57
1,45	2,06	2,04	1,46	1,90	1,92	1,89
6,78	7,88	7,86	7,11	7,95	6,19	7,21
4,72	5,44	6,14	5,74	5,64	6,04	5,19
3,57	3,62	5,51	3,47	3,65	3,06	3,59
10,10	10,46	10,43	10,32	10,62	10,47	9,18
3,75	4,97	4,48	3,42	4,49	3,85	4,16

MicMa245	MicMa246	MicMa247	MicMa250	MicMa255	MicMa256	MicMa263
0,75	1,06	0,96	1,06	1,06	0,94	1,05
0,00	3,53	2,10	0,76	3,53	3,75	3,30
2,58	3,18	2,95	2,88	3,26	3,24	3,38
1,22	1,66	1,37	1,56	1,68	1,71	1,52
1,33	2,06	1,68	1,89	2,01	1,99	1,83
0,00	2,13	1,44	1,51	3,27	2,02	1,97
1,50	1,93	1,56	2,69	2,46	2,30	2,23
3,16	3,57	3,19	3,68	3,84	3,83	4,40
1,61	2,81	2,02	2,21	2,08	2,60	2,24
1,02	2,20	2,50	1,72	1,96	2,43	1,93
0,00	2,97	2,31	0,00	1,13	2,58	0,00
1,31	1,81	2,27	1,86	1,20	0,94	1,16
0,00	0,00	3,27	0,00	3,53	0,00	0,00
4,42	5,07	4,70	4,91	4,96	5,10	4,91
4,30	4,28	4,42	4,39	3,32	3,53	3,80
3,43	0,00	3,92	3,42	3,83	3,71	4,02
3,38	3,68	3,44	3,74	3,71	3,84	3,53
4,16	0,00	3,97	3,56	1,02	2,81	4,64
2,99	3,92	3,42	3,65	3,56	3,80	3,42
5,48	7,63	5,76	6,22	7,61	6,90	6,91
4,17	5,46	4,73	4,53	4,64	5,17	4,35
1,38	0,76	1,53	1,80	2,08	2,18	1,57
7,01	7,37	7,08	7,27	7,67	7,58	7,34
4,89	5,33	5,44	5,94	5,82	6,47	5,49
3,12	3,55	3,56	3,44	3,56	3,65	3,43
9,97	10,07	10,31	9,91	9,92	10,56	10,01
4,17	3,90	4,43	3,42	4,14	4,79	3,35

MicMa264	MicMa267	MicMa269	MicMa270	MicMa275	MicMa277	MicMa281
0,88	0,78	0,93	1,06	1,07	0,78	0,92
0,00	0,00	0,24	3,09	3,13	5,30	0,00
3,14	2,97	2,73	3,49	3,09	3,76	3,08
1,49	1,38	1,58	1,65	1,58	1,28	1,40
1,83	1,66	2,05	2,13	2,03	1,55	1,68
1,71	1,26	1,51	2,19	2,03	3,09	1,04
2,31	1,96	1,86	2,23	2,19	1,56	1,79
2,95	3,02	3,28	3,26	4,06	3,47	3,05
2,14	2,66	2,23	2,20	4,40	1,91	2,87
2,00	1,62	1,94	2,09	2,15	5,03	2,34
0,00	1,02	1,41	2,99	2,90	3,26	2,05
1,88	0,76	2,05	1,78	1,64	0,76	2,22
3,79	0,00	0,00	0,00	0,00	3,65	0,00
4,80	4,68	5,08	5,19	5,24	4,51	4,72
4,66	3,81	4,52	4,77	4,78	3,99	3,63
3,98	2,72	3,19	4,24	4,45	3,95	4,13
3,65	3,60	3,60	3,98	3,92	3,54	3,53
4,27	0,00	3,38	0,00	4,15	3,57	4,89
3,29	3,47	3,70	3,70	3,70	3,42	3,38
5,91	6,24	6,04	6,73	6,24	5,69	5,20
4,66	4,85	4,08	4,86	5,00	4,42	4,03
1,54	1,37	1,42	1,53	2,16	1,74	1,42
6,69	7,14	7,27	7,51	7,31	7,16	6,72
5,59	5,52	5,43	5,34	5,83	5,95	5,06
3,32	3,20	3,47	3,63	3,64	3,11	3,35
9,32	9,17	9,29	9,70	9,67	9,11	8,74
3,54	3,83	4,14	5,08	4,45	4,48	4,12

MicMa283	MicMa285	MicMa293	MicMa298	MicMa300	MicMa301	MicMa308
0,70	0,93	0,91	0,97	0,99	3,66	0,94
3,65	0,00	2,71	3,53	6,28	7,80	0,00
3,07	2,96	2,73	2,65	4,45	5,02	2,77
1,61	1,63	1,56	1,15	1,58	2,08	1,59
1,97	1,93	1,91	1,15	1,69	2,01	1,77
1,35	1,33	1,45	1,75	4,85	5,05	1,04
2,37	1,89	1,82	1,68	1,71	2,86	1,31
3,12	3,11	5,05	3,10	3,17	3,28	4,29
2,23	4,30	2,00	5,03	4,75	3,07	2,11
4,51	2,02	1,05	2,42	3,91	4,84	2,20
1,18	2,17	1,33	2,57	4,21	5,38	2,11
1,34	2,16	1,92	1,40	1,43	2,68	1,24
0,00	0,00	0,00	0,00	0,00	4,79	0,00
4,97	5,02	5,03	3,88	5,12	5,02	4,77
4,15	4,36	5,17	4,56	4,22	6,35	3,74
4,01	3,76	3,70	3,82	4,45	3,97	3,97
3,74	3,78	3,55	3,72	3,66	5,13	3,63
4,51	3,24	3,99	2,74	4,35	5,13	4,37
3,59	3,54	3,49	3,49	3,65	6,82	3,54
6,86	6,01	6,36	5,71	6,32	6,64	6,95
4,83	4,41	5,07	4,87	4,23	4,96	2,23
1,51	1,64	1,65	0,78	1,59	1,93	2,21
7,36	7,44	7,24	5,40	7,35	7,10	7,12
5,33	5,33	5,38	5,20	5,54	5,36	6,20
3,36	3,40	3,44	3,09	3,33	5,81	5,27
9,84	8,81	9,94	10,21	10,14	9,37	10,25
4,05	4,35	4,04	4,01	4,38	3,94	4,62

MicMa309	MicMa314	MicMa318	MicMa321	MicMa330	MicMa334	MicMa335
1,08	1,65	1,21	1,02	0,79	0,87	0,83
2,77	3,94	3,48	1,87	0,00	0,00	0,00
3,19	3,55	3,06	3,17	3,24	3,30	3,27
1,75	1,65	1,64	1,54	1,81	1,72	1,79
2,07	2,06	1,81	1,83	2,26	2,12	2,21
2,12	3,03	4,22	1,95	1,94	1,64	2,30
2,07	2,24	1,85	1,67	2,28	1,57	1,77
3,52	7,39	7,46	6,40	3,61	4,05	3,47
2,31	3,01	4,39	2,38	2,40	2,67	2,86
2,34	2,10	1,93	2,05	2,92	2,62	2,54
2,40	2,87	1,13	1,96	0,00	2,54	1,06
1,99	1,69	1,57	1,70	2,41	1,73	1,99
0,00	3,42	3,40	0,00	1,94	3,09	2,88
5,25	5,19	4,99	5,04	5,12	5,14	5,12
4,55	4,64	4,96	4,26	3,86	3,63	3,87
3,86	4,21	3,88	3,73	3,54	4,39	3,90
3,92	4,00	3,53	3,74	3,61	3,62	3,51
4,10	4,26	3,50	4,48	4,58	3,96	4,54
3,84	3,60	3,70	3,42	3,93	3,53	3,68
7,18	5,81	6,64	5,95	6,50	5,93	5,53
5,05	5,21	7,12	5,48	4,91	4,72	4,47
1,68	3,62	2,05	1,77	1,59	1,83	1,66
7,68	7,61	7,55	7,60	7,44	7,02	7,21
5,77	6,35	6,06	5,90	5,36	5,80	5,05
3,94	3,68	3,55	3,40	3,76	3,55	3,74
10,32	9,18	10,22	9,94	9,33	9,78	9,37
4,68	4,32	3,55	4,38	3,65	4,48	4,00

MicMa338	MicMa341	MicMa355	MicMa357	MicMa359	MicMa363	MicMa371
1,12	0,97	0,90	0,97	0,69	0,85	0,75
4,20	0,00	0,00	0,00	0,00	0,00	0,00
3,53	3,40	3,12	3,08	2,92	3,03	3,37
1,95	1,88	1,72	1,62	1,41	1,46	1,78
2,26	2,36	2,39	2,18	1,89	1,79	2,28
2,39	2,23	2,03	2,22	1,70	1,58	2,89
2,28	1,96	2,06	1,99	1,94	2,03	1,98
6,15	6,30	4,69	4,69	3,90	4,24	3,59
2,95	2,85	2,30	1,91	3,44	4,77	2,33
2,79	2,58	2,21	3,31	2,53	2,35	2,01
2,29	2,06	2,64	2,47	1,88	1,16	2,95
1,77	2,02	2,13	1,61	1,02	1,24	1,77
3,15	3,36	2,73	2,87	2,70	0,00	3,58
5,42	5,40	5,03	5,16	4,67	4,97	5,32
4,63	4,77	4,82	4,46	4,96	4,41	4,73
4,68	4,21	3,60	3,73	3,01	4,02	4,23
4,06	3,64	3,62	3,38	3,24	2,96	4,06
0,00	1,66	3,60	3,04	2,43	3,86	4,11
4,03	3,99	3,63	3,74	6,22	3,53	3,76
6,22	5,33	7,01	6,12	6,09	5,76	6,46
5,31	5,23	4,72	4,43	5,16	4,99	5,41
2,90	1,69	1,82	2,63	2,07	1,52	2,14
7,70	7,70	7,12	7,30	6,90	7,53	7,42
6,47	5,27	6,53	6,34	5,51	5,74	5,22
3,95	3,89	3,62	3,66	3,56	3,46	3,70
9,90	10,15	9,74	10,07	9,47	9,19	9,73
4,55	4,16	4,92	4,51	4,52	4,12	4,81

MicMa388	MicMa391	MicMa406	MicMa430	MicMa436	MicMa451	MicMa457
1,20	0,83	0,92	0,84	1,33	0,85	1,10
0,00	0,00	0,00	0,00	5,64	0,00	0,00
3,43	3,29	3,81	3,48	4,17	2,78	3,22
2,20	1,75	1,75	1,80	1,77	1,55	1,79
2,67	2,14	2,10	2,20	2,14	2,00	2,36
2,07	1,93	2,12	1,71	3,50	1,77	2,04
2,45	1,94	2,11	2,18	2,36	1,66	2,44
3,48	3,49	3,45	3,57	4,16	4,62	3,57
2,50	3,71	2,88	2,77	4,21	2,57	2,36
2,49	2,56	2,58	2,16	2,62	2,35	2,09
0,00	2,41	0,00	2,08	1,93	2,42	1,46
2,58	1,14	1,18	2,05	1,85	1,44	1,67
3,78	3,05	3,62	3,49	4,28	2,13	3,31
5,33	5,23	5,22	5,17	5,01	4,83	5,26
4,42	3,36	4,27	4,57	5,60	4,04	5,07
4,70	3,93	4,04	3,55	4,03	3,73	3,91
4,23	3,49	3,51	3,49	3,66	3,74	3,68
4,06	3,59	4,51	3,67	4,03	0,00	2,68
4,57	3,61	3,70	3,87	3,93	3,53	3,90
5,78	5,84	5,77	5,42	6,10	5,67	5,93
5,48	4,75	4,74	4,45	4,27	5,20	6,07
1,75	1,76	1,70	1,77	2,02	1,90	1,84
7,55	7,71	7,55	7,27	7,38	6,93	7,43
5,70	5,50	5,62	5,63	6,00	5,79	5,94
4,14	3,71	3,59	3,56	3,87	3,88	3,85
10,46	9,58	10,16	9,90	10,27	10,02	10,32
4,11	4,56	4,29	4,52	4,55	4,59	4,03

MicMa470	MicMa476	MicMa480	MicMa488	MicMa493	MicMa539	MicMa570
0,83	0,96	1,01	1,02	1,93	2,07	0,57
0,00	6,83	0,00	0,00	4,96	4,68	5,09
3,33	4,37	3,05	3,18	3,38	3,59	4,44
1,63	1,82	1,81	1,70	1,65	2,15	1,56
1,93	2,26	2,06	1,99	2,21	2,30	2,03
1,27	4,29	2,34	2,07	3,76	2,57	4,40
2,08	2,06	2,41	2,13	1,98	2,44	2,11
3,88	4,57	3,77	3,60	3,82	3,81	3,71
2,06	2,43	2,19	4,23	2,13	2,54	3,18
2,49	4,74	3,24	2,89	2,44	2,32	4,77
1,93	4,51	1,63	0,90	2,26	3,38	4,87
0,85	1,55	1,10	1,42	0,94	1,53	1,63
2,49	4,01	2,42	2,98	3,69	3,19	3,13
5,03	5,37	4,92	5,04	5,14	5,51	4,86
4,32	4,45	4,16	4,44	5,37	4,70	4,22
4,11	4,05	4,08	3,86	3,91	4,34	3,74
3,31	3,55	3,43	3,47	3,64	4,45	3,60
3,88	4,17	0,00	4,23	3,77	2,41	4,19
3,63	4,01	3,74	3,85	4,71	4,37	3,72
5,91	5,50	5,74	5,76	5,67	6,24	5,90
4,86	4,74	4,84	4,76	4,21	5,60	4,44
1,81	1,78	2,02	1,91	1,61	2,30	1,62
7,50	7,63	7,43	7,49	7,38	7,79	6,70
5,75	6,04	5,84	5,89	5,61	5,50	5,43
3,54	3,76	3,68	3,73	3,71	4,13	3,81
10,13	10,92	10,44	10,37	8,85	9,99	10,04
4,69	5,23	4,59	4,15	5,10	4,90	4,55

MicMa579	MicMa627	MicMa630	MicMa632	MicMa709	MicMa722	DCTB055	DCTB058
1,16	0,93	1,02	0,99	0,85	1,35	1,71	1,61
4,08	0,00	0,00	5,72	0,00	0,00	5,07	4,77
3,62	3,54	3,35	3,92	3,43	3,51	3,21	3,30
1,97	1,68	1,79	1,65	1,77	2,06	2,19	2,17
2,38	2,21	2,29	2,01	2,14	2,58	2,68	2,61
1,50	1,94	1,89	3,25	1,64	2,53	2,67	2,57
3,59	2,48	2,52	2,13	2,17	3,05	2,18	2,51
3,69	4,81	4,49	3,87	4,57	4,35	3,89	3,81
2,56	2,22	2,36	3,76	2,33	3,12	2,89	3,04
4,60	1,56	2,54	2,95	1,89	3,07	3,08	2,46
3,09	1,83	1,21	3,50	1,16	4,12	3,87	3,18
1,92	1,44	1,83	1,50	2,09	1,99	2,64	2,50
3,52	3,38	3,63	3,31	2,63	3,45	0,00	0,00
5,46	5,27	5,28	5,15	5,21	5,56	5,44	5,74
3,29	4,17	5,03	4,39	4,28	4,98	4,81	4,42
4,19	4,12	4,00	4,06	3,82	4,50	4,30	4,59
3,59	3,58	3,60	3,36	3,57	3,84	4,57	4,49
4,31	4,52	4,46	4,48	1,76	4,17	2,74	3,36
4,40	3,75	3,84	3,71	3,78	4,30	4,89	4,76
5,89	5,89	5,79	5,51	5,99	5,86	6,72	6,29
5,19	5,10	4,87	4,63	4,59	5,44	4,24	3,98
1,54	1,78	1,93	1,77	1,89	2,54	2,19	2,66
7,88	7,79	7,38	7,33	7,40	7,94	6,63	7,02
4,96	6,19	6,19	5,31	6,12	6,44	5,62	5,40
4,47	3,72	3,78	3,60	3,66	4,03	9,47	9,10
9,12	10,37	10,94	9,93	10,55	10,17	4,41	4,59
4,66	4,30	4,10	4,79	4,42	6,27	4,61	4,27

DCTB074	DCTB084	DCTB087	DCTB094	DCTB117	DCTB127	DCTB128	DCTB133	DCTB152
1,54	1,47	1,56	1,68	1,75	2,30	1,64	1,60	1,50
4,88	4,94	4,65	5,04	5,80	6,10	4,85	4,70	4,69
3,34	3,35	3,10	3,41	3,49	3,62	3,28	3,22	3,33
2,15	1,97	2,06	2,21	2,27	2,32	2,20	2,16	2,17
2,60	2,51	2,56	2,64	2,82	3,30	2,80	2,56	2,62
2,41	2,25	2,33	2,76	2,69	3,49	2,57	2,55	2,32
2,83	2,45	2,44	2,68	2,54	3,03	2,51	2,62	2,25
3,91	3,60	3,71	4,00	3,96	4,14	3,93	3,73	3,72
2,92	2,61	2,55	3,23	3,11	3,41	3,00	2,71	2,89
2,35	3,70	2,79	2,83	2,74	3,90	2,65	2,51	2,70
2,82	2,82	3,68	3,45	3,25	3,92	2,93	3,41	3,57
2,01	1,93	2,07	2,48	2,45	2,83	2,43	2,10	2,13
0,00	0,00	0,00	0,00	0,00	3,20	0,00	0,00	0,00
5,80	5,58	5,49	5,94	5,71	5,37	5,61	5,61	5,68
5,35	4,71	5,11	5,07	4,65	4,90	5,03	4,60	4,99
4,44	4,26	4,10	4,93	4,33	4,78	4,22	4,30	3,96
4,37	4,25	4,34	4,64	4,84	5,01	4,39	4,32	4,20
2,95	2,83	2,89	3,37	3,26	3,97	3,10	2,63	3,03
4,43	4,44	4,64	4,87	4,98	5,79	4,96	4,63	4,55
7,04	5,93	6,41	6,51	6,57	5,92	6,34	6,67	7,16
3,87	3,74	4,21	4,17	4,13	4,73	4,26	3,85	3,91
2,16	2,17	2,08	2,23	2,27	2,96	2,09	2,00	1,85
8,02	7,16	6,66	7,47	7,40	5,92	7,22	7,47	7,59
6,08	5,79	5,44	5,14	5,02	4,67	5,32	5,68	5,62
9,35	9,31	8,95	9,31	9,20	8,24	9,52	9,65	9,75
4,14	4,23	4,30	4,56	4,62	5,17	4,47	4,29	4,26
4,19	4,06	4,90	4,59	4,14	3,92	4,13	4,40	4,27

DCTB155	DCTB156	DCTB157	DCTB158	DCTB199	DCTB201	DCTB202	DCTB203	DCTB223
1,77	1,53	1,56	3,27	1,39	1,59	1,44	2,03	1,41
4,78	4,74	4,81	4,71	4,39	4,74	4,47	5,52	4,39
3,36	3,00	2,35	3,41	3,03	3,23	2,40	3,22	3,19
2,17	2,06	1,60	2,24	1,91	2,11	1,92	2,10	2,04
2,68	2,51	2,42	2,62	2,46	2,60	2,28	2,70	2,50
2,51	2,36	2,56	2,71	2,19	2,36	2,50	2,48	2,24
2,39	2,64	2,46	2,62	2,46	2,60	2,72	2,72	2,18
3,91	3,73	3,37	3,89	3,59	3,73	3,79	3,87	3,65
2,95	2,52	2,47	2,86	2,41	2,51	2,76	2,72	2,59
2,44	5,07	2,70	2,63	2,25	2,73	2,06	2,72	2,01
3,26	6,29	2,66	3,60	3,45	3,81	3,41	3,78	3,45
2,45	2,13	2,65	2,46	2,15	2,25	2,70	2,62	2,02
0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5,71	5,28	4,05	5,68	5,37	5,52	4,95	5,38	5,59
4,81	4,37	3,79	4,96	5,80	4,85	5,05	5,05	5,09
4,52	4,19	4,07	4,31	4,04	4,11	3,81	4,30	4,30
4,57	4,27	4,47	4,51	4,29	4,44	4,39	4,51	4,13
3,13	2,97	2,66	2,93	2,78	3,10	2,14	2,90	2,23
4,65	4,58	4,62	4,70	4,38	4,60	3,99	4,71	4,37
6,96	6,12	6,96	6,88	6,74	6,81	8,55	6,74	6,17
3,87	3,84	3,81	3,90	3,84	3,94	3,89	4,12	3,74
2,47	2,02	2,30	2,13	1,86	2,03	1,92	2,18	2,03
7,33	7,04	4,72	7,80	6,30	7,26	5,98	6,94	7,14
5,34	5,18	4,70	5,39	5,48	5,47	6,01	5,89	5,41
9,02	8,98	8,50	9,16	9,43	9,41	8,59	8,91	9,13
4,49	4,17	4,31	4,52	4,09	4,32	4,11	4,54	4,20
4,07	4,16	2,70	4,61	4,59	4,83	4,00	4,79	4,33

DCTB229	DCTB235	DCTB237	DCTB258	DCTB264	DCTB293	DCTB302	DCTB383
1,56	1,69	1,50	1,61	1,95	2,57	1,68	1,74
4,62	4,42	4,82	4,76	5,40	6,46	5,03	5,07
3,07	3,41	3,42	3,41	3,51	4,09	3,41	3,68
2,05	2,14	2,07	2,17	2,40	2,95	2,25	2,29
2,40	2,35	2,42	2,69	2,75	3,40	2,67	2,75
2,38	2,27	2,25	2,53	2,89	3,33	2,72	2,73
2,51	2,19	2,54	2,75	3,07	3,90	2,77	3,60
3,67	3,50	3,77	3,91	4,14	4,78	4,15	3,99
2,62	2,65	3,28	3,07	3,46	3,87	3,97	4,18
2,06	2,15	2,89	2,70	3,18	4,49	2,86	3,18
2,98	3,22	4,10	3,58	4,95	4,97	3,42	4,99
2,06	2,06	2,30	2,34	2,92	3,85	2,46	2,42
0,00	1,49	0,00	0,00	0,00	4,11	0,00	3,15
5,60	5,77	5,83	5,70	6,01	6,06	5,69	6,83
3,94	4,44	5,34	4,94	5,19	5,60	5,00	6,46
4,16	4,49	4,98	4,51	4,97	5,08	4,51	5,93
4,22	4,20	4,78	4,60	4,92	5,60	4,71	4,86
2,65	4,36	3,52	3,25	3,81	4,34	4,27	5,60
4,69	4,45	4,45	4,70	4,87	5,69	4,82	4,85
6,83	6,59	6,87	7,58	7,39	7,16	7,27	7,44
3,89	3,81	3,97	3,59	4,36	4,87	4,28	4,21
2,06	2,03	2,94	2,24	2,93	2,76	2,36	3,77
7,31	8,15	7,17	7,83	7,71	7,76	7,58	7,74
5,76	6,84	5,81	5,74	6,35	5,82	5,49	6,13
9,37	10,41	9,35	9,60	9,07	9,32	9,21	9,74
4,22	4,19	4,31	4,19	4,68	5,45	4,63	4,56
4,18	4,78	4,63	4,98	4,55	4,81	4,07	5,47