

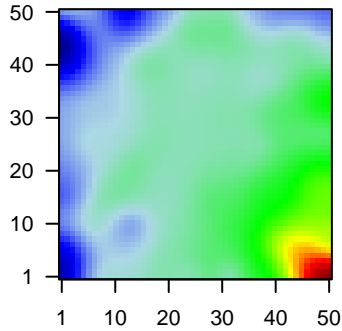
# GW\_166

## Global Summary

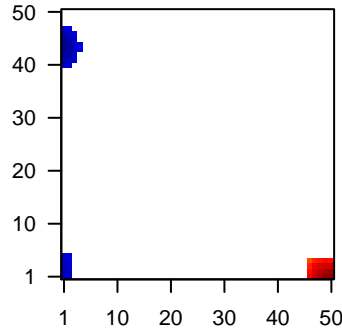
%DE = 0.16  
 # genes with  $fdr < 0.2$  = 2152 ( 1128 + / 1024 - )  
 # genes with  $fdr < 0.1$  = 1894 ( 1004 + / 890 - )  
 # genes with  $fdr < 0.05$  = 1583 ( 853 + / 730 - )  
 # genes with  $fdr < 0.01$  = 1179 ( 640 + / 539 - )  
 # genes in genesets = 16332

<FC> = 0  
 <shrinkage-t> = 0  
 <p-value> = 0.06  
 <fdr> = 0.84

Profile



Regulated Spots



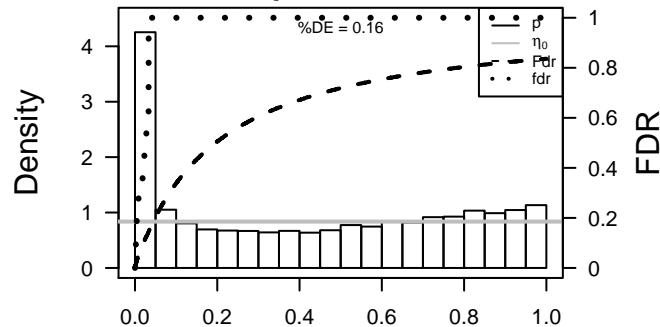
## Global Genelist

| Rank | ID     | log(FC) | fdr   | p-value | Description   |
|------|--------|---------|-------|---------|---|
| 1    | 9744   | 1.85    | 2e-16 | 1e-14   | 49 x 1 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 [S  |
| 2    | 8728   | 1.79    | 2e-16 | 1e-14   | 50 x 3 ADAM metallopeptidase domain 19 [Source:HGNC Symbol;A        |
| 3    | 27299  | 1.63    | 2e-16 | 1e-14   | 49 x 1 ADAM-like, decysin 1 [Source:HGNC Symbol;Acc:16299]          |
| 4    | 133    | -2.18   | 2e-16 | 1e-14   | 1 x 42 adrenomedullin [Source:HGNC Symbol;Acc:259]                  |
| 5    | 10551  | 1.54    | 2e-16 | 1e-14   | 50 x 10 anterior gradient 2 [Source:HGNC Symbol;Acc:328]            |
| 6    | 113146 | -1.93   | 2e-16 | 1e-14   | 1 x 44 AHNAK nucleoprotein 2 [Source:HGNC Symbol;Acc:20125]         |
| 7    | 80709  | 1.58    | 2e-16 | 1e-14   | 49 x 1 AT-hook transcription factor [Source:HGNC Symbol;Acc:2411    |
| 8    | 57016  | -1.86   | 2e-16 | 1e-14   | 1 x 50 aldo-keto reductase family 1, member B10 (aldose reductase   |
| 9    | 441282 | -1.85   | 2e-16 | 1e-14   | 1 x 49 aldo-keto reductase family 1, member B15 [Source:HGNC S]     |
| 10   | 8644   | -1.78   | 2e-16 | 1e-14   | 1 x 50 aldo-keto reductase family 1, member C3 [Source:HGNC Syr     |
| 11   | 1109   | -1.75   | 2e-16 | 1e-14   | 13 x 50 aldo-keto reductase family 1, member C4 [Source:HGNC Syr    |
| 12   | 115701 | 2.03    | 2e-16 | 1e-14   | 50 x 3 alpha-kinase 2 [Source:HGNC Symbol;Acc:20565]                |
| 13   | 55107  | -1.89   | 2e-16 | 1e-14   | 1 x 5 anoctamin 1, calcium activated chloride channel [Source:HG]   |
| 14   | 54518  | 1.92    | 2e-16 | 1e-14   | 50 x 1 amyloid beta (A4) precursor protein-binding, family B, membe |
| 15   | 55843  | 1.94    | 2e-16 | 1e-14   | 50 x 1 Rho GTPase activating protein 15 [Source:HGNC Symbol;Ac      |
| 16   | 393    | 1.61    | 2e-16 | 1e-14   | 49 x 1 Rho GTPase activating protein 4 [Source:HGNC Symbol;Acc:     |
| 17   | 64333  | 1.87    | 2e-16 | 1e-14   | 50 x 1 Rho GTPase activating protein 9 [Source:HGNC Symbol;Acc:     |
| 18   | 397    | 1.59    | 2e-16 | 1e-14   | 50 x 1 Rho GDP dissociation inhibitor (GDI) beta [Source:HGNC Syr   |
| 19   | 9459   | 1.95    | 2e-16 | 1e-14   | 50 x 1 Rac/Cdc42 guanine nucleotide exchange factor (GEF) 6 [Sou    |
| 20   | 640    | 1.55    | 2e-16 | 1e-14   | 46 x 4 B lymphoid tyrosine kinase [Source:HGNC Symbol;Acc:1057]     |

## Global Geneset Analysis

| Rank                  | GSZ    | p-value | #all | Geneset   |
|-----------------------|--------|---------|------|---|
| <i>Overexpressed</i>  |        |         |      |   |
| 1                     | 29.66  | NULL    | 417  | H.Tiss WIRTH_Immune system  |
| 2                     | 14.89  | NULL    | 16   | GSEA C2RICKMAN_HEAD_AND_NECK_CANCER_D                                 |
| 3                     | 13.99  | NULL    | 553  | Cancer Lembcke_Colonc Inflammation                                    |
| 4                     | 13.15  | NULL    | 15   | CC MHC class II protein complex                                       |
| 5                     | 11.66  | NULL    | 60   | BP T cell costimulation   |
| 6                     | 10.97  | NULL    | 84   | BP T cell receptor signaling pathway                                  |
| 7                     | 10.73  | NULL    | 9    | GSEA C2MILICIC_FAMILIAL_ADENOMATOUS_POLYPOSIS_DN                      |
| 8                     | 10.63  | NULL    | 28   | BP B cell receptor signaling pathway                                  |
| 9                     | 10.39  | NULL    | 312  | BP immune response  |
| 10                    | 10.08  | NULL    | 11   | GSEA C2BIOCARTA_THELPER_PATHWAY                                       |
| 11                    | 9.81   | NULL    | 11   | GSEA C2BIOCARTA_TCYTOTOXIC_PATHWAY                                    |
| 12                    | 9.8    | NULL    | 16   | GSEA C2SU_THYMUS  |
| 13                    | 9.29   | NULL    | 13   | Cancer GENTLES_modul18  |
| 14                    | 9.28   | NULL    | 162  | CC external side of plasma membrane                                   |
| 15                    | 9.19   | NULL    | 327  | LymphomSPANG_CD40 6hrs UP   |
| 16                    | 9.15   | NULL    | 74   | BP regulation of immune response                                      |
| 17                    | 8.7    | NULL    | 14   | GSEA C2FINETTI_BREAST_CANCER_KINOME_GREEN                             |
| 18                    | 8.61   | NULL    | 10   | GSEA C2LEE_DIFFERENTIATING_T_LYMPHOCYTE                               |
| 19                    | 8.58   | NULL    | 28   | BP B cell activation  |
| 20                    | 8.48   | NULL    | 8    | Glio Donson-migration tethering and rolling-associated with LTS in HG |
| <i>Underexpressed</i> |        |         |      |   |
| 1                     | -13.88 | NULL    | 242  | BP extracellular matrix organization                                  |
| 2                     | -11.89 | NULL    | 572  | Disease GUDJ_poriasis up  |
| 3                     | -11.54 | NULL    | 64   | BP collagen catabolic process   |
| 4                     | -11.5  | NULL    | 69   | BP extracellular matrix disassembly                                   |
| 5                     | -10.91 | NULL    | 190  | CC extracellular matrix   |
| 6                     | -10.43 | NULL    | 76   | BP epidermis development  |
| 7                     | -10.23 | NULL    | 83   | CC basement membrane  |
| 8                     | -9.39  | NULL    | 12   | BP hemidesmosome assembly   |
| 9                     | -8.92  | NULL    | 530  | Cancer Lembcke_Normal vs Adenoma                                      |
| 10                    | -8.35  | NULL    | 11   | MF platelet-derived growth factor binding                             |
| 11                    | -8.28  | NULL    | 16   | GSEA C2HUPER_BREAST_BASAL_VS_LUMINAL_UP                               |
| 12                    | -8.25  | NULL    | 15   | GSEA C2CROMER_TUMORIGENESIS_UP  |
| 13                    | -8.2   | NULL    | 16   | MMML C2CIEJ_MMML 1  |
| 14                    | -8.09  | NULL    | 12   | miRNA target-29c  |
| 15                    | -7.65  | NULL    | 57   | MF extracellular matrix structural constituent                        |
| 16                    | -7.58  | NULL    | 68   | Glio cultured astroglia vs. in vivo astrocytes                        |
| 17                    | -7.48  | NULL    | 117  | Glio GIEZELT_GBM_WT_up_VS_mut   |
| 18                    | -7.46  | NULL    | 37   | BP collagen fibril organization                                       |
| 19                    | -7.33  | NULL    | 135  | H.Tiss WIRTH_Mucosa   |
| 20                    | -7.32  | NULL    | 250  | LymphomLEENZ_Stromal signature 1                                      |

p-values



# GW\_166

## Local Summary

%DE = 0.97  
 # metagenes = 20  
 # genes = 314  
 # genes in genesets = 312

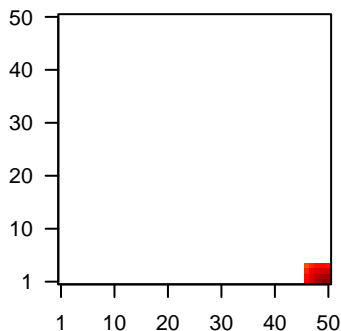
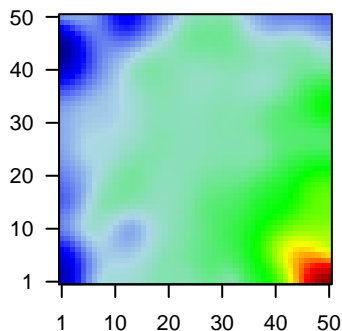
# genes with  $fdr < 0.1 = 294$  ( 293 + / 1 - )  
 # genes with  $fdr < 0.05 = 294$  ( 293 + / 1 - )  
 # genes with  $fdr < 0.01 = 287$  ( 286 + / 1 - )

<r> metagenes = 0.99  
 <r> genes = 0.59

<FC> = 1.3  
 <shrinkage-t> = 45.47  
 <p-value> = 0  
 <fdr> = 0.09

Profile

Spot



## Local Genelist

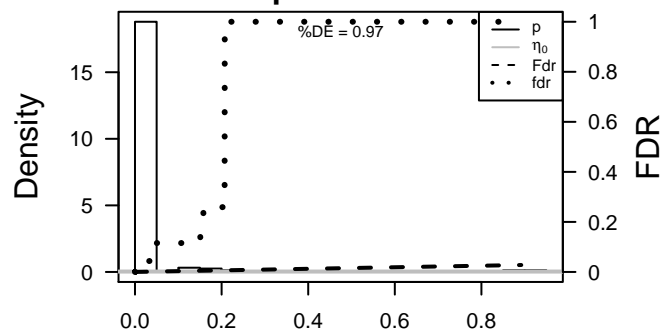
| Rank | ID     | log(FC) | fdr   | p-value | Description  |
|------|--------|---------|-------|---------|--|
| 1    | 9744   | 1.85    | 2e-16 | 2e-17   | 49 x 1 ArfGAP with coiled-coil, ankyrin repeat and PH domains 1 [S   |
| 2    | 8728   | 1.79    | 2e-16 | 2e-17   | 50 x 3 ADAM metallopeptidase domain 19 [Source:HGNC Symbol;A         |
| 3    | 27299  | 1.63    | 2e-16 | 2e-17   | 49 x 1 ADAM-like, decysin 1 [Source:HGNC Symbol;Acc:16299]           |
| 4    | 80709  | 1.58    | 2e-16 | 2e-17   | 49 x 1 AT-hook transcription factor [Source:HGNC Symbol;Acc:241      |
| 5    | 115701 | 2.03    | 2e-16 | 2e-17   | 50 x 3 alpha-kinase 2 [Source:HGNC Symbol;Acc:20565]                 |
| 6    | 54518  | 1.92    | 2e-16 | 2e-17   | 50 x 1 amyloid beta (A4) precursor protein-binding, family B, membr  |
| 7    | 55843  | 1.94    | 2e-16 | 2e-17   | 50 x 1 Rho GTPase activating protein 15 [Source:HGNC Symbol;Ac       |
| 8    | 393    | 1.61    | 2e-16 | 2e-17   | 49 x 1 Rho GTPase activating protein 4 [Source:HGNC Symbol;Acc:      |
| 9    | 64333  | 1.87    | 2e-16 | 2e-17   | 50 x 1 Rho GTPase activating protein 9 [Source:HGNC Symbol;Acc:      |
| 10   | 397    | 1.59    | 2e-16 | 2e-17   | 50 x 1 Rho GDP dissociation inhibitor (GDI) beta [Source:HGNC Sy     |
| 11   | 9459   | 1.95    | 2e-16 | 2e-17   | 50 x 1 Rac/Cdc42 guanine nucleotide exchange factor (GEF) 6 [Sou     |
| 12   | 640    | 1.55    | 2e-16 | 2e-17   | 46 x 4 B lymphoid tyrosine kinase [Source:HGNC Symbol;Acc:1057]      |
| 13   | 695    | 1.64    | 2e-16 | 2e-17   | 49 x 1 Bruton agammaglobulinemia tyrosine kinase [Source:HGNC :      |
| 14   | 260436 | 2.89    | 2e-16 | 2e-17   | 50 x 1 follicular dendritic cell secreted protein [Source:HGNC Symbc |
| 15   | 6363   | 3.83    | 2e-16 | 2e-17   | 50 x 1 chemokine (C-C motif) ligand 19 [Source:HGNC Symbol;Acc       |
| 16   | 6366   | 3.12    | 2e-16 | 2e-17   | 50 x 2 chemokine (C-C motif) ligand 21 [Source:HGNC Symbol;Acc       |
| 17   | 1236   | 2.61    | 2e-16 | 2e-17   | 50 x 1 chemokine (C-C motif) receptor 7 [Source:HGNC Symbol;Ac       |
| 18   | 930    | 3.28    | 2e-16 | 2e-17   | 49 x 1 CD19 molecule [Source:HGNC Symbol;Acc:1633]                   |
| 19   | 914    | 1.96    | 2e-16 | 2e-17   | 49 x 1 CD2 molecule [Source:HGNC Symbol;Acc:1639]                    |
| 20   | 919    | 2.12    | 2e-16 | 2e-17   | 50 x 1 CD247 molecule [Source:HGNC Symbol;Acc:1677]                  |

## Local Geneset Analysis

Overexpression

| Rank | GSZ   | p-value | #in/all   | Geneset   |
|------|-------|---------|-----------|---|
| 1    | 36.36 | NULL    | 103 / 417 | H Tiss WIRTH_Immune system  |
| 2    | 31.79 | NULL    | 113 / 553 | Cancer Lembocke_Colonic Inflammation                                  |
| 3    | 22.76 | NULL    | 9 / 16    | GSEA C2FARMER_BREAST_CANCER_CLUSTER_1                                 |
| 4    | 22.56 | NULL    | 12 / 15   | CC MHC class II protein complex                                       |
| 5    | 20.06 | NULL    | 60 / 312  | BP immune response  |
| 6    | 19.11 | NULL    | 7 / 15    | GSEA C2FINAK_BREAST_CANCER_SDPP_SIGNATURE                             |
| 7    | 18.79 | NULL    | 7 / 11    | GSEA C2BIOCARTA_THELPER_PATHWAY                                       |
| 8    | 18.74 | NULL    | 6 / 8     | Glio Donson-migration tethering and rolling-associated with LTS in HG |
| 9    | 18.52 | NULL    | 12 / 28   | BP B cell receptor signaling pathway                                  |
| 10   | 18.18 | NULL    | 7 / 11    | GSEA C2BIOCARTA_TCYTOTOXIC_PATHWAY                                    |
| 11   | 17.25 | NULL    | 3 / 9     | GSEA C2MILIC_FAMILIAL_ADENOMATOUS_POLYPOSI_DN                         |
| 12   | 16.89 | NULL    | 8 / 16    | GSEA C2SU_THYMUS  |
| 13   | 16.8  | NULL    | 8 / 13    | Cancer GENTLES_modul18  |
| 14   | 16.7  | NULL    | 19 / 60   | BP T cell costimulation   |
| 15   | 16.42 | NULL    | 5 / 17    | BP positive regulation of neutrophil chemotaxis                       |
| 16   | 15.95 | NULL    | 5 / 12    | BP dendritic cell chemotaxis  |
| 17   | 15.8  | NULL    | 51 / 265  | Glio willscher_GBM_Verhaak-CL_expression_B_up                         |
| 18   | 15.8  | NULL    | 51 / 265  | Glio willscher_GBM_Verhaak-MES_expression_B_up                        |
| 19   | 15.8  | NULL    | 51 / 265  | Glio willscher_GBM_Verhaak-PNwt_expression_B_down                     |
| 20   | 15.8  | NULL    | 51 / 265  | Glio willscher_GBM_Verhaak-PNmut_expression_B_down                    |
| 21   | 15.3  | NULL    | 18 / 74   | BP regulation of immune response                                      |
| 22   | 15.09 | NULL    | 5 / 10    | GSEA C2LEE_DIFFERENTIATING_T_LYMPHOCYTE                               |
| 23   | 15.01 | NULL    | 28 / 162  | CC external side of plasma membrane                                   |
| 24   | 14.86 | NULL    | 6 / 12    | GSEA C2BIOCARTA_CTL_PATHWAY   |
| 25   | 14.29 | NULL    | 3 / 7     | GSEA C2GRAHAM_CML_DIVIDING_VS_NORMAL_DIVIDING_DN                      |
| 26   | 14.22 | NULL    | 5 / 8     | GSEA C2BIOCARTA_TCRA_PATHWAY  |
| 27   | 13.51 | NULL    | 15 / 47   | BP antigen processing and presentation                                |
| 28   | 13.18 | NULL    | 5 / 10    | GSEA C2FLECHNER_BIOPSY_KIDNEY_TRANSPLANT_REJECTED_VS_                 |
| 29   | 12.97 | NULL    | 6 / 13    | GSEA C2BIOCARTA_IL17_PATHWAY  |
| 30   | 12.9  | NULL    | 6 / 14    | GSEA C2BIOCARTA_NO2IL12_PATHWAY                                       |
| 31   | 12.86 | NULL    | 5 / 11    | BP positive regulation of B cell differentiation                      |
| 32   | 12.6  | NULL    | 3 / 5     | GSEA C2WONG_ENDOMETRIAL_CANCER_LATE                                   |
| 33   | 12.49 | NULL    | 4 / 10    | GSEA C2BIOCARTA_LYM_PATHWAY   |
| 34   | 12.45 | NULL    | 19 / 84   | BP T cell receptor signaling pathway                                  |
| 35   | 11.97 | NULL    | 4 / 8     | GSEA C2BIOCARTA_TCAPOPTOSIS_PATHWAY                                   |
| 36   | 11.96 | NULL    | 6 / 14    | GSEA C2FINETTI_BREAST_CANCER_KINOME_GREEN                             |
| 37   | 11.83 | NULL    | 10 / 45   | BP T cell activation  |
| 38   | 11.68 | NULL    | 4 / 8     | GSEA C2REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWE                   |
| 39   | 11.65 | NULL    | 2 / 10    | BP positive regulation of chemotaxis                                  |
| 40   | 11.64 | NULL    | 4 / 14    | BP ruffle organization  |

p-values



# GW\_166

## Local Summary

%DE = 0.94  
 # metagenes = 10  
 # genes = 177  
 # genes in genesets = 175

# genes with  $fdr < 0.1 = 163$  ( 7 + / 156 - )  
 # genes with  $fdr < 0.05 = 160$  ( 7 + / 153 - )  
 # genes with  $fdr < 0.01 = 143$  ( 6 + / 137 - )

$\langle r \rangle$  metagenes = 0.97

$\langle r \rangle$  genes = 0.38

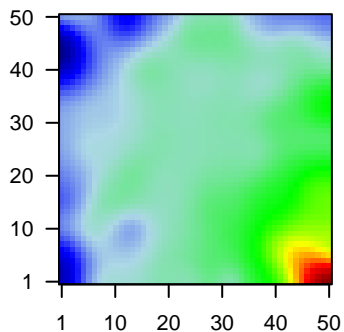
$\langle FC \rangle = -0.87$

$\langle \text{shrinkage-t} \rangle = -30.64$

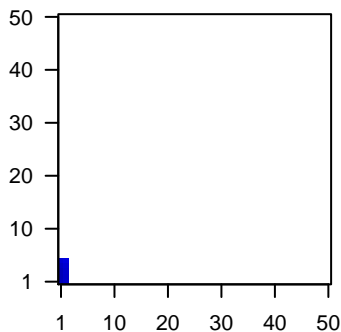
$\langle p\text{-value} \rangle = 0$

$\langle fdr \rangle = 0.18$

Profile



Spot



## Local Genelist

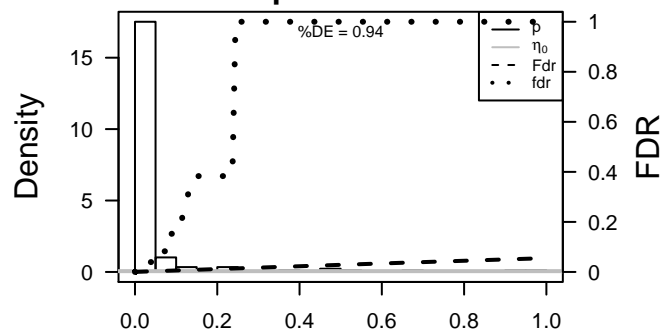
| Rank | ID     | log(FC) | fdr   | p-value | Description   |
|------|--------|---------|-------|---------|---|
| 1    | 55107  | -1.89   | 2e-16 | 8e-17   | 1 x 5 anoctamin 1, calcium activated chloride channel [Source:HGNC Symbol;Acc:2197] |
| 2    | 857    | -1.53   | 2e-16 | 8e-17   | 1 x 4 caveolin 1, caveolae protein, 22kDa [Source:HGNC Symbol;Acc:2198]             |
| 3    | 1277   | -2.5    | 2e-16 | 8e-17   | 2 x 1 collagen, type I, alpha 1 [Source:HGNC Symbol;Acc:2197]                       |
| 4    | 1278   | -1.67   | 2e-16 | 8e-17   | 2 x 1 collagen, type I, alpha 2 [Source:HGNC Symbol;Acc:2198]                       |
| 5    | 1281   | -1.75   | 2e-16 | 8e-17   | 2 x 1 collagen, type III, alpha 1 [Source:HGNC Symbol;Acc:2201]                     |
| 6    | 1282   | -1.78   | 2e-16 | 8e-17   | 2 x 1 collagen, type IV, alpha 1 [Source:HGNC Symbol;Acc:2202]                      |
| 7    | 1289   | -1.97   | 2e-16 | 8e-17   | 2 x 1 collagen, type V, alpha 1 [Source:HGNC Symbol;Acc:2209]                       |
| 8    | 1290   | -1.79   | 2e-16 | 8e-17   | 2 x 1 collagen, type V, alpha 2 [Source:HGNC Symbol;Acc:2210]                       |
| 9    | 1293   | -1.73   | 2e-16 | 8e-17   | 2 x 1 collagen, type VI, alpha 3 [Source:HGNC Symbol;Acc:2213]                      |
| 10   | 1294   | -2.07   | 2e-16 | 8e-17   | 1 x 5 collagen, type VII, alpha 1 [Source:HGNC Symbol;Acc:2214]                     |
| 11   | 2919   | -1.63   | 2e-16 | 8e-17   | 1 x 1 chemokine (C-X-C motif) ligand 1 (melanoma growth stimula                     |
| 12   | 285761 | -1.65   | 2e-16 | 8e-17   | 1 x 4 discoidin, CUB and LCCL domain containing 1 [Source:HGNC                      |
| 13   | 2195   | -2.1    | 2e-16 | 8e-17   | 1 x 5 FAT atypical cadherin 1 [Source:HGNC Symbol;Acc:3595]                         |
| 14   | 8870   | -1.56   | 2e-16 | 8e-17   | 1 x 3 immediate early response 3 [Source:HGNC Symbol;Acc:5392]                      |
| 15   | 3576   | -2.52   | 2e-16 | 8e-17   | 1 x 1 interleukin 8 [Source:HGNC Symbol;Acc:6025]                                   |
| 16   | 3918   | -1.66   | 2e-16 | 8e-17   | 1 x 4 laminin, gamma 2 [Source:HGNC Symbol;Acc:6493]                                |
| 17   | 4312   | -2.48   | 2e-16 | 8e-17   | 1 x 1 matrix metalloproteinase 1 (interstitial collagenase) [Source:Hi              |
| 18   | 4319   | -2.11   | 2e-16 | 8e-17   | 1 x 3 matrix metalloproteinase 10 (stromelysin 2) [Source:HGNC Sy                   |
| 19   | 4314   | -2.25   | 2e-16 | 8e-17   | 1 x 1 matrix metalloproteinase 3 (stromelysin 1, progelatinase) [Sou                |
| 20   | 4502   | -1.73   | 2e-16 | 8e-17   | 1 x 3 metallothionein 2A [Source:HGNC Symbol;Acc:7406]                              |

## Local Geneset Analysis

Underexpression

| Rank | GSZ    | p-value | #in/all   | Geneset  |
|------|--------|---------|-----------|--|
| 1    | -31.51 | NULL    | 6 / 11    | MF platelet-derived growth factor binding          |
| 2    | -31.23 | NULL    | 46 / 242  | BP extracellular matrix organization               |
| 3    | -30.32 | NULL    | 19 / 64   | BP collagen catabolic process                      |
| 4    | -30.28 | NULL    | 20 / 69   | BP extracellular matrix disassembly                |
| 5    | -29.73 | NULL    | 10 / 16   | CC MIMM1 C63CIEJ_MMML 1                            |
| 6    | -27.85 | NULL    | 6 / 12    | BP miRNA target-29c                                |
| 7    | -27.58 | NULL    | 6 / 10    | GSEA C2VERRECCHIA_RESPONSE_TO_TGFB1_C4             |
| 8    | -27.18 | NULL    | 7 / 16    | GSEA C2FARMER_BREAST_CANCER_CLUSTER_5              |
| 9    | -26.74 | NULL    | 33 / 190  | CC extracellular matrix                            |
| 10   | -25.86 | NULL    | 10 / 15   | GSEA C2CROMER_TUMORIGENESIS_UP                     |
| 11   | -22.66 | NULL    | 10 / 40   | BP cellular response to amino acid stimulus        |
| 12   | -21.02 | NULL    | 12 / 57   | MF extracellular matrix structural constituent     |
| 13   | -21    | NULL    | 10 / 37   | BP collagen fibril organization                    |
| 14   | -20.8  | NULL    | 4 / 12    | GSEA C2Y_AGING_MIDDLE_UP                           |
| 15   | -20.16 | NULL    | 35 / 250  | BP Lymphocyte-stromal signature 1                  |
| 16   | -20.06 | NULL    | 6 / 15    | GSEA C2LEE_LIVER_CANCER_HEPATOBLAST                |
| 17   | -19.33 | NULL    | 4 / 11    | GSEA C2BIOCARTA_PLATELETAPP_PATHWAY                |
| 18   | -19.25 | NULL    | 4 / 9     | GSEA C2ZERBINI_RESPONSE_TO_SULINDAC_UP             |
| 19   | -18.7  | NULL    | 30 / 265  | Glio willscher_GBM_Verhaak-CL_expression_B_up      |
| 20   | -18.7  | NULL    | 30 / 265  | Glio willscher_GBM_Verhaak-MES_expression_B_up     |
| 21   | -18.7  | NULL    | 30 / 265  | Glio willscher_GBM_Verhaak-PNwt_expression_B_down  |
| 22   | -18.7  | NULL    | 30 / 265  | Glio willscher_GBM_Verhaak-PNmut_expression_B_down |
| 23   | -17.79 | NULL    | 14 / 83   | CC basement membrane                               |
| 24   | -17.74 | NULL    | 73 / 1182 | CC extracellular region                            |
| 25   | -17.42 | NULL    | 5 / 11    | Glio Phillips MES up vs Prolif & PN                |
| 26   | -17.39 | NULL    | 53 / 683  | CC extracellular space                             |
| 27   | -17.28 | NULL    | 4 / 10    | GSEA C2KEGG_ECM_RECEPTOR_INTERACTION               |
| 28   | -16.93 | NULL    | 5 / 14    | GSEA C2VERRECCHIA_EARLY_RESPONSE_TO_TGFB1          |
| 29   | -16.75 | NULL    | 38 / 403  | BP cell adhesion                                   |
| 30   | -16.71 | NULL    | 5 / 16    | GSEA C2BEGUM_TARGETS_OF_PAX3_FOXO1_FUSION_DN       |
| 31   | -16.32 | NULL    | 1 / 3     | GSEA C2REN_MIF_TARGETS_DN                          |
| 32   | -16.16 | NULL    | 4 / 15    | GSEA C2CHANG_POU5F1_TARGETS_UP                     |
| 33   | -16.12 | NULL    | 4 / 13    | GSEA C2BRUECKNER_TARGETS_OF_MIRLET7A3_DN           |
| 34   | -15.8  | NULL    | 41 / 553  | Cancer Lembcke_Colonc Inflammation                 |
| 35   | -15.77 | NULL    | 2 / 8     | GSEA C2OSAWA_TNF_TARGETS                           |
| 36   | -15.52 | NULL    | 16 / 153  | CC endoplasmic reticulum lumen                     |
| 37   | -15.49 | NULL    | 9 / 68    | CC collagen  |
| 38   | -15.47 | NULL    | 5 / 13    | GSEA C2FRIDMAN_SENESCENCE_UP                       |
| 39   | -15.21 | NULL    | 3 / 10    | BP protein heterotrimerization                     |
| 40   | -14.53 | NULL    | 2 / 6     | GSEA C2SEIKE_LUNG_CANCER_POOR_SURVIVAL             |

p-values



# GW\_166

## Local Summary

%DE = 0.97  
 # metagenes = 24  
 # genes = 286  
 # genes in genesets = 280  
 # genes with  $fdr < 0.1 = 269$  ( 2 + / 267 - )  
 # genes with  $fdr < 0.05 = 259$  ( 2 + / 257 - )  
 # genes with  $fdr < 0.01 = 237$  ( 0 + / 237 - )

<r> metagenes = 0.93

<r> genes = 0.36

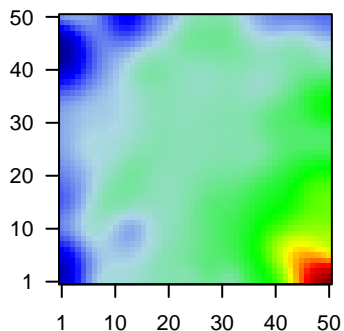
<FC> = -0.85

<shrinkage-t> = -29.92

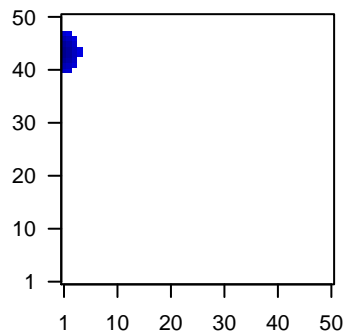
<p-value> = 0

<fdr> = 0.19

Profile



Spot



## Local Genelist

| Rank | ID     | log(FC) | fdr   | p-value | Description   |
|------|--------|---------|-------|---------|---|
| 1    | 133    | -2.18   | 2e-16 | 8e-17   | 1 x 42 adrenomedullin [Source:HGNC Symbol;Acc:259]                    |
| 2    | 113146 | -1.93   | 2e-16 | 8e-17   | 1 x 44 AHNAK nucleoprotein 2 [Source:HGNC Symbol;Acc:20125]           |
| 3    | 760    | -1.81   | 2e-16 | 8e-17   | 1 x 44 carbonic anhydrase II [Source:HGNC Symbol;Acc:1373]            |
| 4    | 1001   | -1.96   | 2e-16 | 8e-17   | 1 x 43 cadherin 3, type 1, P-cadherin (placental) [Source:HGNC Sy     |
| 5    | 1308   | -1.85   | 2e-16 | 8e-17   | 1 x 43 collagen, type XVII, alpha 1 [Source:HGNC Symbol;Acc:2194      |
| 6    | 51200  | -1.83   | 2e-16 | 8e-17   | 1 x 44 carboxypeptidase A4 [Source:HGNC Symbol;Acc:15740]             |
| 7    | 1515   | -1.77   | 2e-16 | 8e-17   | 1 x 44 cathepsin V [Source:HGNC Symbol;Acc:2538]                      |
| 8    | 2150   | -1.55   | 2e-16 | 8e-17   | 1 x 44 coagulation factor II (thrombin) receptor-like 1 [Source:HGNC  |
| 9    | 2171   | -2      | 2e-16 | 8e-17   | 1 x 46 fatty acid binding protein 5 (psoriasis-associated) [Source:HC |
| 10   | 2697   | -2.05   | 2e-16 | 8e-17   | 1 x 44 gap junction protein, alpha 1, 43kDa [Source:HGNC Symbol;      |
| 11   | 10804  | -1.81   | 2e-16 | 8e-17   | 1 x 47 gap junction protein, beta 6, 30kDa [Source:HGNC Symbol;A      |
| 12   | 3429   | -1.41   | 2e-16 | 8e-17   | 1 x 42 interferon, alpha-inducible protein 27 [Source:HGNC Symbol     |
| 13   | 50805  | -1.81   | 2e-16 | 8e-17   | 1 x 43 iroquois homeobox 4 [Source:HGNC Symbol;Acc:6129]              |
| 14   | 3848   | -1.75   | 2e-16 | 8e-17   | 1 x 47 keratin 1 [Source:HGNC Symbol;Acc:6412]                        |
| 15   | 3861   | -1.63   | 2e-16 | 8e-17   | 1 x 45 keratin 14 [Source:HGNC Symbol;Acc:6416]                       |
| 16   | 3868   | -3.04   | 2e-16 | 8e-17   | 1 x 46 keratin 16 [Source:HGNC Symbol;Acc:6423]                       |
| 17   | 3872   | -2.93   | 2e-16 | 8e-17   | 1 x 43 keratin 17 [Source:HGNC Symbol;Acc:6427]                       |
| 18   | 3852   | -1.52   | 2e-16 | 8e-17   | 1 x 44 keratin 5 [Source:HGNC Symbol;Acc:6442]                        |
| 19   | 286887 | -2.27   | 2e-16 | 8e-17   | 1 x 47 keratin 6C [Source:HGNC Symbol;Acc:20406]                      |
| 20   | 55214  | -1.86   | 2e-16 | 8e-17   | 1 x 42 leprecan-like 1 [Source:HGNC Symbol;Acc:19317]                 |

## Local Geneset Analysis

Underexpression

| Rank | GSZ    | p-value | #in/all  | Geneset  |
|------|--------|---------|----------|--|
| 1    | -20.79 | NULL    | 18 / 82  | CC intermediate filament                             |
| 2    | -20.35 | NULL    | 28 / 135 | H.Tiss WIRTH_Mucosa                                  |
| 3    | -19.92 | NULL    | 8 / 16   | GSEA C2HUPER_BREAST_BASAL_VS_LUMINAL_UP              |
| 4    | -18.4  | NULL    | 15 / 76  | BP epidermis development                             |
| 5    | -16.56 | NULL    | 5 / 12   | BP hemidesmosome assembly                            |
| 6    | -16.43 | NULL    | 68 / 572 | Disease GUDJ_psooriasis up                           |
| 7    | -16.2  | NULL    | 9 / 44   | CC keratin filament                                  |
| 8    | -15.25 | NULL    | 2 / 2    | miRNA target-199a*                                   |
| 9    | -14.82 | NULL    | 4 / 13   | BP intermediate filament cytoskeleton organization   |
| 10   | -12.84 | NULL    | 4 / 12   | GSEA C2REACTOME_GAP_JUNCTION_ASSEMBLY                |
| 11   | -12.17 | NULL    | 3 / 8    | GSEA C2LIU_CDX2_TARGETS_DN                           |
| 12   | -12.13 | NULL    | 11 / 82  | MF structural constituent of cytoskeleton            |
| 13   | -11.86 | NULL    | 8 / 21   | CC desmosome   |
| 14   | -11.54 | NULL    | 3 / 17   | BP morphogenesis of an epithelium                    |
| 15   | -11.48 | NULL    | 2 / 6    | GSEA C2WALLACE_PROSTATE_CANCER_DN                    |
| 16   | -11.44 | NULL    | 4 / 13   | GSEA C2REACTOME_GAP_JUNCTION_TRAFFICKING             |
| 17   | -11.42 | NULL    | 18 / 186 | MF structural molecule activity                      |
| 18   | -11.3  | NULL    | 4 / 15   | CC connexon complex                                  |
| 19   | -11.04 | NULL    | 5 / 15   | GSEA C2AIGNER_ZEB1_TARGETS                           |
| 20   | -10.89 | NULL    | 4 / 16   | GSEA C2ELVIDGE_HIF1A_TARGETS_DN                      |
| 21   | -10.87 | NULL    | 4 / 16   | GSEA C2ELVIDGE_HIF1A_AND_HIF2A_TARGETS_DN            |
| 22   | -10.42 | NULL    | 3 / 12   | GSEA C2MIZUKAMI_HYPOXIA_UP                           |
| 23   | -10.39 | NULL    | 3 / 25   | BP response to zinc ion                              |
| 24   | -10.39 | NULL    | 3 / 35   | CC cell periphery                                    |
| 25   | -10.32 | NULL    | 5 / 21   | CC gap junction                                      |
| 26   | -10.32 | NULL    | 3 / 16   | GSEA C2BECKER_TAMOXIFEN_RESISTANCE_DN                |
| 27   | -9.67  | NULL    | 4 / 38   | BP epithelial cell differentiation                   |
| 28   | -9.58  | NULL    | 3 / 10   | MF gap junction channel activity                     |
| 29   | -9.49  | NULL    | 3 / 11   | GSEA C2GAUSSMANN_MLL_AF4_FUSION_TARGETS_G_UP         |
| 30   | -9.48  | NULL    | 4 / 15   | GSEA C2FARMER_BREAST_CANCER_CLUSTER_3                |
| 31   | -9.4   | NULL    | 2 / 15   | GSEA C2SMID_BREAST_CANCER_LUMINAL_A_DN               |
| 32   | -9.13  | NULL    | 4 / 16   | GSEA C2FARMER_BREAST_CANCER_CLUSTER_4                |
| 33   | -9.08  | NULL    | 6 / 15   | GSEA C2RICKMAN_TUMOR_DIFFERENTIATED_WELL_VS_MODERATE |
| 34   | -9.06  | NULL    | 2 / 15   | GSEA C2NGUYEN_NOTCH1_TARGETS_UP                      |
| 35   | -9.03  | NULL    | 3 / 6    | GSEA C2SMID_BREAST_CANCER_RELAPSE_IN_PLEURA_UP       |
| 36   | -9.03  | NULL    | 2 / 16   | GSEA C2SMID_BREAST_CANCER_RELAPSE_IN_LUNG_UP         |
| 37   | -8.84  | NULL    | 3 / 26   | BP positive regulation of vasodilation               |
| 38   | -8.81  | NULL    | 8 / 85   | Glio laffaire_hypermeth_LGG_vs_control               |
| 39   | -8.8   | NULL    | 4 / 20   | MF scaffold protein binding                          |
| 40   | -8.8   | NULL    | 2 / 5    | GSEA C2FERRARI_RESPONSE_TO_FENRETINIDE_DN            |

p-values

