

Table S3: Comparison of candidate gene lists according to univariate vs. multivariate analyses of the microarray study. In the univariate analysis, genes were considered as differentially expressed with an adjusted p-value  $\leq 0.5$ . In the SVM-RFE analysis, frequencies between 30 and 40 were considered the threshold for significance. In the RF analysis, a mean decrease accuracy of  $\geq 2.0$  was regarded significant. If genes were detected with more than one probe in the multivariate analyses, mean values of frequencies and mean decrease accuracies were noted in the table, eventually resulting in non integral numbers (RF = Random Forest, SVM-RFE = support vector machines with recursive feature elimination).

Univariate analysis	SVM-RFE frequency	RF mean decrease accuracy
<i>Ttbk1</i>	40	2.636
<i>Cyp4f14</i>	40	2.651
<i>Cyp4f15</i>	40	2.195
<i>Mthfd1</i>	40	2.637
<i>Aldh1l1</i>	40	2.808
<i>LOC100047937</i>	40	2.306
<i>Aars</i>	40	2.081
<i>Slc25a34</i>	40	2.684
<i>Chst10</i>	40	2.457
<i>LOC638301</i>	40	2.527
<i>Mff</i>	40	2.523
<i>Myo1f</i>	40	2.212
<i>Tmem132d</i>	40	2.579
<i>Zfp472</i>	40	Not detected
<i>B930008G09Rik</i>	40	2.710
<i>Tbc1d9b</i>	40	2.147
<i>Bmp2k</i>	40	2.351
<i>Bub3</i>	40	2.400
<i>Akr1e1</i>	40	2.399
<i>Glp2r</i>	40	2.357
<i>Pex6</i>	40	2.473
<i>Hsp90ab1</i>	40	2.760
<i>Fmn2</i>	40	Not detected
<i>2310036D22Rik</i>	40	2.406
<i>Stx8</i>	40	Not detected
<i>Adam22</i>	40	2.268
<i>Fxr2</i>	40	Not detected
<i>Cdc5l</i>	40	2.407
<i>Adora2b</i>	40	Not detected
<i>Spast</i>	40	Not detected
<i>Gstm1</i>	40	2.692
<i>Masp2</i>	40	2.614
<i>Zfp157</i>	40	Not detected
<i>Ccbl2</i>	40	2.639
<i>Plekha5</i>	36.5	2.612
<i>9030612M13Rik</i>	40	Not detected
<i>Papss2</i>	40	2.276
<i>Gtf2ird2</i>	33	Not detected
<i>Rgl1</i>	40	2.569
<i>Nrn1l</i>	40	Not detected
<i>Ankle2</i>	40	2.514
<i>BC066107</i>	40	2.166
<i>Mrpl10</i>	40	Not detected
<i>Kcnq5</i>	31	Not detected
<i>Ehd3</i>	40	Not detected

<b>Ypel5</b>	40	Not detected
<b>Dap3</b>	40	2.253
<b>Elac2</b>	40	2.869
<b>LOC100047273</b>	40	Not detected
<b>D430030C18Rik</b>	40	2.587
<b>LOC622901</b>	40	2.329
<b>Tmem82</b>	40	2.468
<b>Sap130</b>	40	2.307
<b>Slc41a3</b>	40	2.441
<b>Slco1c1</b>	40	Not detected
<b>Ash1l</b>	40	2.219
<b>Adat1</b>	40	Not detected
<b>Tyms-ps</b>	40	Not detected
<b>Cyp4f16</b>	40	2.795
<b>Krt9</b>	40	Not detected
<b>Ppil3</b>	40	2.673
<b>LOC629364</b>	40	2.543
<b>Gstz1</b>	40	2.009
<b>9030016H15Rik</b>	40	2.346
<b>0610010E21Rik</b>	40	2.678
<b>BC011248</b>	40	Not detected
<b>Sec22c</b>	40	Not detected
<b>Stk32a</b>	40	Not detected
<b>Vwa5a</b>	40	2.526
<b>Ldb3</b>	40	2.097
<b>LOC381738</b>	40	Not detected
<b>5830417I10Rik</b>	40	2.192
<b>3110079O15Rik</b>	40	Not detected
<b>Itgae</b>	38	Not detected
<b>Slc25a17</b>	Not detected	Not detected
<b>Pank3</b>	40	Not detected
<b>Folh1</b>	40	2.176
<b>2610305D13Rik</b>	40	Not detected
<b>Slc35b2</b>	40	2.434
<b>Gats</b>	40	2.098
<b>Tmf1</b>	40	Not detected
<b>Chd3</b>	40	Not detected
<b>Mad2l1bp</b>	40	2.380
<b>Gprasp1</b>	38	Not detected
<b>Il33</b>	35	Not detected
<b>Nrarp</b>	40	2.226
<b>Nme7</b>	32	Not detected
<b>Cd97</b>	40	2.112
<b>2310002F18Rik</b>	40	Not detected
<b>LOC100040462</b>	34	Not detected
<b>Prosc</b>	38	Not detected
<b>Rmnd1</b>	Not detected	Not detected
<b>Fbxo6</b>	40	Not detected
<b>A930023F12Rik</b>	Not detected	Not detected
<b>LOC100044204</b>	40	Not detected
<b>C130035G06Rik</b>	40	2.149
<b>C730004I03Rik</b>	40	Not detected
<b>Col20a1</b>	40	Not detected
<b>Fbxo2</b>	40	Not detected
<b>Golt1b</b>	40	2.267
<b>Darc</b>	40	Not detected

<b>Gm1698</b>	40	Not detected
<b>Dbf4</b>	Not detected	Not detected
<b>Timp4</b>	40	Not detected
<b>1700027N10Rik</b>	40	2.845
<b>Cebpg</b>	40	2.304
<b>Chl1</b>	40	2.339
<b>LOC433801</b>	40	2.164
<b>OTTMUSG00000010673</b>	40	2.126
<b>Trim41</b>	40	2.631
<b>Spink10</b>	Not detected	Not detected
<b>2610020C11Rik</b>	37	Not detected
<b>Nt5dc3</b>	37	Not detected
<b>Als2</b>	40	2.554
<b>Tcte1</b>	40	Not detected
<b>Kars</b>	39	Not detected
<b>Slc29a1</b>	37	Not detected
<b>Zfp318</b>	40	2.085
<b>Dcxr</b>	40	Not detected
<b>Cnpy3</b>	40	2.241
<b>Pvrl3</b>	40	2.530
<b>Abcb1b</b>	40	Not detected
<b>6230425C21Rik</b>	40	Not detected
<b>1600014C23Rik</b>	32	Not detected
<b>Hist1h2be</b>	Not detected	Not detected
<b>Mobp</b>	Not detected	Not detected
<b>Hgs</b>	40	2.380
<b>9330160M08Rik</b>	40	Not detected
<b>Dnaic1</b>	Not detected	Not detected
<b>Lbh</b>	30	Not detected
<b>Hey2</b>	40	Not detected
<b>LOC626152</b>	37	Not detected
<b>D12Ert553e</b>	40	Not detected
<b>D330025A21Rik</b>	40	Not detected
<b>Polr1c</b>	40	2.290
<b>D130078K04Rik</b>	Not detected	Not detected
<b>Emb</b>	40	Not detected
<b>Msi2</b>	40	2.359
<b>E430003D02Rik</b>	Not detected	Not detected
<b>Serpinf1</b>	Not detected	Not detected
<b>Sh3gl2</b>	39	2.504
<b>Prodh</b>	40	2.042
<b>4921513D23Rik</b>	Not detected	Not detected
<b>9330197B14Rik</b>	38	Not detected
<b>Brf2</b>	38	Not detected
<b>0610042C05Rik</b>	Not detected	2.257
<b>D330040L23Rik</b>	39	Not detected
<b>Krr1</b>	40	2.583
<b>Gstk1</b>	40	Not detected
<b>A730085F06Rik</b>	Not detected	Not detected
<b>Aebp2</b>	37.5	Not detected
<b>Hhatl</b>	Not detected	Not detected
<b>Hist1h1c</b>	Not detected	Not detected
<b>G6pc3</b>	40	Not detected
<b>Sox5</b>	40	2.424
<b>LOC544988</b>	Not detected	Not detected
<b>Acy1</b>	38	Not detected

<b>Apol2</b>	Not detected	Not detected
<b>Rpain</b>	38	Not detected
<b>Gm949</b>	40	Not detected
<b>Abcc10</b>	40	Not detected
<b>EG433224</b>	Not detected	Not detected
<b>Tmtc2</b>	40	Not detected
<b>Hfe</b>	39	Not detected
<b>Pthr1</b>	40	Not detected
<b>D830013H23Rik</b>	40	Not detected
<b>Sh2d6</b>	33	Not detected
<b>BC065397</b>	40	Not detected
<b>Usp38</b>	40	2.368
<b>Ugt1a10</b>	40	Not detected
<b>Rpl10a</b>	40	Not detected
<b>Gpld1</b>	Not detected	Not detected
<b>LOC331139</b>	39	Not detected
<b>D15BWG0759E</b>	33	Not detected
<b>Nkd1</b>	33	Not detected
<b>Gp38</b>	36	Not detected
<b>Ascc2</b>	40	Not detected
<b>D130051O21Rik</b>	36	Not detected
<b>Zfp78</b>	40	2.050
<b>Slc1a2</b>	40	Not detected
<b>Nploc4</b>	40	Not detected
<b>Rps24</b>	Not detected	Not detected
<b>Gabrg2</b>	40	Not detected
<b>Klc4</b>	40	2.359
<b>Rftn2</b>	Not detected	Not detected
<b>A830027B17Rik</b>	32	Not detected
<b>Chst5</b>	Not detected	Not detected
<b>Elovl4</b>	Not detected	Not detected
<b>Zfp422-rs1</b>	32	Not detected
<b>4930522L14Rik</b>	40	Not detected
<b>Tmem138</b>	40	2.334
<b>Dusp23</b>	35	Not detected
<b>Lca5</b>	36	Not detected
<b>BC027344</b>	Not detected	Not detected
<b>LOC670089</b>	Not detected	Not detected
<b>Dbx2</b>	40	2.513
<b>Aars2</b>	Not detected	Not detected
<b>Hist1h2bm</b>	Not detected	Not detected
<b>9630018J20Rik</b>	Not detected	Not detected
<b>Hapln4</b>	37	2.418
<b>Ift122</b>	40	2.318
<b>Slc24a6</b>	39	2.456
<b>Msh6</b>	33	Not detected
<b>Crtac1</b>	40	Not detected
<b>Cbs</b>	40	Not detected
<b>Tkt</b>	38	Not detected
<b>6330500D04Rik</b>	Not detected	Not detected
<b>Mrpl3</b>	40	Not detected
<b>LOC100044430</b>	32	Not detected
<b>2810451K12Rik</b>	40	Not detected
<b>Cux2</b>	Not detected	Not detected
<b>A430079E08</b>	40	Not detected
<b>4930429B21Rik</b>	40	2.488

<b><i>Alox5ap</i></b>	40	2.215
<b><i>Atp6v1g1</i></b>	Not detected	Not detected
<b><i>6332401O19Rik</i></b>	40	2.221
<b><i>LOC385615</i></b>	40	Not detected
<b><i>Cdk3</i></b>	31	Not detected
<b><i>Insig1</i></b>	30	Not detected
<b><i>Lgals9</i></b>	40	Not detected
<b><i>Them2</i></b>	Not detected	Not detected
<b><i>Msh3</i></b>	Not detected	Not detected
<b><i>LOC383110</i></b>	Not detected	Not detected
<b><i>Skp2</i></b>	Not detected	Not detected
<b><i>Pdyn</i></b>	35	Not detected
<b><i>6720475J19Rik</i></b>	Not detected	Not detected
<b><i>Ccno</i></b>	Not detected	Not detected
<b><i>A030001A03Rik</i></b>	Not detected	Not detected
<b><i>Cyp4f13</i></b>	Not detected	Not detected
<b><i>E030017D19Rik</i></b>	Not detected	Not detected
<b><i>Scd1</i></b>	Not detected	Not detected
<b><i>Clec2e</i></b>	Not detected	Not detected
<b><i>D430041D05Rik</i></b>	Not detected	Not detected
<b><i>Nfya</i></b>	Not detected	Not detected
<b><i>Acot11</i></b>	40	Not detected
<b><i>Samsn1</i></b>	Not detected	Not detected
<b><i>Ccm2</i></b>	Not detected	Not detected
<b><i>Vti1a</i></b>	40	Not detected
<b><i>A630054M16Rik</i></b>	40	2.424
<b><i>Gtf3c1</i></b>	Not detected	Not detected
<b><i>C130072A16Rik</i></b>	Not detected	Not detected
<b><i>Vmn2r122</i></b>	Not detected	Not detected
<b><i>Yipf3</i></b>	Not detected	Not detected
<b><i>9030409G11Rik</i></b>	38	Not detected
<b><i>A730017C20Rik</i></b>	35	Not detected
<b><i>LOC380655</i></b>	40	Not detected
<b><i>Rabep1</i></b>	34	Not detected
<b><i>Pde6c</i></b>	Not detected	Not detected
<b><i>LOC100047788</i></b>	37	Not detected
<b><i>Cdc37l1</i></b>	Not detected	Not detected
<b><i>9330158N06Rik</i></b>	Not detected	Not detected
<b><i>Top1mt</i></b>	38	Not detected
<b><i>Myh9</i></b>	Not detected	Not detected
<b><i>Lhx9</i></b>	35	Not detected
<b><i>Chi3l1</i></b>	Not detected	Not detected
<b><i>Rab14</i></b>	32	Not detected
<b><i>Dgkh</i></b>	38	Not detected
<b><i>Acot1</i></b>	37	Not detected
<b><i>Zfp69</i></b>	40	Not detected
<b><i>Pcdh21</i></b>	30	Not detected
<b><i>Nipsnap1</i></b>	Not detected	Not detected
<b><i>2900052N01Rik</i></b>	Not detected	Not detected
<b><i>D030034I04Rik</i></b>	Not detected	Not detected
<b><i>Traf6</i></b>	Not detected	Not detected
<b><i>LOC381904</i></b>	40	2.148
<b><i>Acaa2</i></b>	38.3	2.549
<b><i>Mtus1</i></b>	Not detected	Not detected
<b><i>Chst8</i></b>	Not detected	Not detected
<b><i>Acss1</i></b>	35	Not detected

<b>Atg3</b>	Not detected	Not detected
<b>1810049H13Rik</b>	Not detected	Not detected
<b>LOC380844</b>	38	Not detected
<b>Mpp4</b>	35	Not detected
<b>Impad1</b>	Not detected	Not detected
<b>Gcdh</b>	40	Not detected
<b>Dbt</b>	36	Not detected
<b>Htr4</b>	36	Not detected
<b>Ift74</b>	32	Not detected
<b>LOC100044756</b>	32	Not detected
<b>Ublcp1</b>	33	Not detected
<b>Hpgd</b>	37	Not detected
<b>BC049806</b>	Not detected	Not detected
<b>0610037M15Rik</b>	Not detected	Not detected
<b>Itgbl1</b>	Not detected	Not detected
<b>Tmem218</b>	33	Not detected
<b>Tsc22d4</b>	37	Not detected
<b>4930535E21Rik</b>	Not detected	Not detected
<b>LOC380888</b>	Not detected	Not detected
<b>Ddx6</b>	38.5	2.362
<b>E130207H16Rik</b>	38	Not detected
<b>Pdk2</b>	Not detected	Not detected
<b>LOC100047486</b>	Not detected	Not detected
<b>Htr1f</b>	Not detected	Not detected
<b>Selenbp2</b>	Not detected	Not detected
<b>2210417D09Rik</b>	Not detected	Not detected
<b>Oplah</b>	Not detected	Not detected
<b>LOC100041516</b>	Not detected	Not detected