

## SIGNIFICANTLY(Adjusted P&lt;0.01) UPREGULATED (Log2FoldChange) HUMAN B-CELL GENES FOLLOWING B-CELL RECEPTOR (BCR) STIMULATION

| T = 60 minutes After BCR Stimulation |                    |                | T = 90 minutes After BCR Stimulation |                    |                | T = 210 minutes After BCR Stimulation |                    |                | T = 390 minutes After BCR Stimulation |                    |                |
|--------------------------------------|--------------------|----------------|--------------------------------------|--------------------|----------------|---------------------------------------|--------------------|----------------|---------------------------------------|--------------------|----------------|
| Gene                                 | Average Expression | Log2FoldChange | Gene                                 | Average Expression | Log2FoldChange | Gene                                  | Average Expression | Log2FoldChange | Gene                                  | Average Expression | Log2FoldChange |
| EGR1                                 | 8.244460769        | 3.872922525    | EGR1                                 | 8.244460769        | 4.074143147    | CCL3                                  | 7.865616234        | 4.069951289    | BCAT1                                 | 5.312815006        | 3.425959591    |
| EGR1                                 | 7.01602966         | 3.39701787     | EGR1                                 | 7.01602966         | 3.61783235     | CD274                                 | 6.088448276        | 3.759726928    | BCAT1                                 | 5.013832798        | 3.089934152    |
| EGR1                                 | 6.913688806        | 3.273589436    | EGR3                                 | 6.538157223        | 3.303835235    | CCL4                                  | 8.952391705        | 3.454065003    | CD274                                 | 6.088448276        | 2.931855342    |
| EGR2                                 | 7.943743735        | 2.24968435     | EGR2                                 | 7.943743735        | 3.291808745    | MYC                                   | 9.189264544        | 3.308653283    | MMET                                  | 7.242950431        | 2.698088424    |
| DUSP2                                | 7.892496637        | 2.062074812    | EGR1                                 | 6.913688806        | 3.117318469    | EGR2                                  | 7.943743735        | 3.247437381    | DUSP4                                 | 6.855111329        | 2.636982478    |
| EGR3                                 | 8.538157223        | 2.047778818    | NR4A3                                | 6.993698886        | 2.87821748     | EGR3                                  | 8.538157223        | 3.217989032    | MIR155HG                              | 7.50554047         | 2.589574058    |
|                                      |                    |                | HES1                                 | 5.955370213        | 2.518722411    | CD72                                  | 7.130412466        | 3.185147315    | FABP5                                 | 7.031102028        | 2.547030369    |
|                                      |                    |                | MYC                                  | 9.189264544        | 2.392950127    | HIVEP3                                | 5.011082728        | 3.1479947      | SERPINE2                              | 6.349677638        | 2.484540309    |
|                                      |                    |                | HES1                                 | 6.098023588        | 2.317867651    | MIR155HG                              | 7.50554047         | 3.119014089    | PUS7                                  | 5.743811435        | 2.420651118    |
|                                      |                    |                | DUSP2                                | 7.892496637        | 2.288656065    | SLAMF1                                | 7.84163            | 3.037463235    | BCAT1                                 | 3.909453778        | 2.356839684    |
|                                      |                    |                | NR4A1                                | 8.847521322        | 2.184214981    | SLAMF7                                | 7.88165335         | 2.948687088    | ADARB1                                | 6.125452403        | 2.298670903    |
|                                      |                    |                | OKS2                                 | 6.948633095        | 2.122243559    | NR4A3                                 | 8.232090572        | 2.923331619    | LRP8                                  | 4.144885813        | 2.235332034    |
|                                      |                    |                | FOSB                                 | 7.192353827        | 2.005989103    | NR4A3                                 | 9.622398784        | 2.871436288    | DUSP4                                 | 6.279396157        | 2.217495015    |
|                                      |                    |                | EGR4                                 | 3.799587247        | 1.952057231    | IL21R                                 | 7.19948281         | 2.869554773    | DUSP4                                 | 6.656940923        | 2.141047936    |
|                                      |                    |                | TNF                                  | 7.35509762         | 1.779481575    | EGR1                                  | 8.244460769        | 2.737944501    | NETO1                                 | 4.376603072        | 2.136800457    |
|                                      |                    |                | KBTBD8                               | 7.219787528        | 1.729743223    | DUSP4                                 | 6.855111329        | 2.720696063    | MYO1E                                 | 5.63507329         | 2.057991974    |
|                                      |                    |                | ADORA2A                              | 7.031258733        | 1.669769237    | NR4A3                                 | 6.993698886        | 2.717425391    | PAICS                                 | 4.355991541        | 2.016073285    |
|                                      |                    |                | PHACTR1                              | 8.001430376        | 1.66084946     | PTGER4                                | 8.122323072        | 2.630440661    | FCRL5                                 | 4.821982799        | 1.952861194    |
|                                      |                    |                | CD69                                 | 9.803181199        | 1.583010001    | SNX8                                  | 5.891785382        | 2.628773509    | MYC                                   | 9.189264544        | 1.945849875    |
|                                      |                    |                |                                      |                    |                | NR4A2                                 | 9.353441577        | 2.597150122    | NETO2                                 | 5.201904599        | 1.928893923    |
|                                      |                    |                |                                      |                    |                | SLAMF7                                | 6.998333305        | 2.590159248    | SLCTA1                                | 8.523073353        | 1.910715321    |
|                                      |                    |                |                                      |                    |                | DUSP4                                 | 6.279306157        | 2.577518932    | HIVEP3                                | 5.011082728        | 1.906460103    |
|                                      |                    |                |                                      |                    |                | SLAMF7                                | 7.43606137         | 2.572194147    | PAICS                                 | 7.663836693        | 1.886918745    |
|                                      |                    |                |                                      |                    |                | BCL2A1                                | 8.747388715        | 2.556880123    | IL21R                                 | 7.19948281         | 1.85013341     |
|                                      |                    |                |                                      |                    |                | SERPINE2                              | 6.349677638        | 2.541989897    | CENPV                                 | 4.808740144        | 1.847834919    |
|                                      |                    |                |                                      |                    |                | ADARB1                                | 6.125452403        | 2.53865147     | SLC3A3                                | 5.850252545        | 1.809772485    |
|                                      |                    |                |                                      |                    |                | EGR1                                  | 7.01602966         | 2.506840436    | SLAMF7                                | 7.88165333         | 1.787620381    |
|                                      |                    |                |                                      |                    |                | SPRY2                                 | 4.646738351        | 2.499764021    | CCND2                                 | 8.303444206        | 1.785248314    |
|                                      |                    |                |                                      |                    |                | NR4A2                                 | 9.444424487        | 2.452433184    | SLC3A14                               | 6.032948646        | 1.784210108    |
|                                      |                    |                |                                      |                    |                | DUSP2                                 | 7.892496637        | 2.451348369    | BZW2                                  | 8.234455024        | 1.767259213    |
|                                      |                    |                |                                      |                    |                | IL21R                                 | 6.38447323         | 2.447822811    | CENPV                                 | 4.878558           | 1.760097787    |
|                                      |                    |                |                                      |                    |                | OKS2                                  | 6.948633095        | 2.445091782    | KCNQ5                                 | 4.229584653        | 1.740123129    |
|                                      |                    |                |                                      |                    |                | SLC7A5                                | 7.375784899        | 2.440287992    | AKAP1                                 | 7.278289204        | 1.737086811    |
|                                      |                    |                |                                      |                    |                | LINC00597                             | 5.603054663        | 2.438564893    | CTPS1                                 | 5.8325318          | 1.732499932    |
|                                      |                    |                |                                      |                    |                | SGK1                                  | 8.493481877        | 2.43636379     | ADCY3                                 | 5.172704401        | 1.718678999    |
|                                      |                    |                |                                      |                    |                | MIR18A                                | 5.619285847        | 2.414043464    | BOP 1.00                              | 5.186108879        | 1.713291682    |
|                                      |                    |                |                                      |                    |                | ADORA2A                               | 7.031258733        | 2.405277712    | SRM                                   | 7.88315536         | 1.709021147    |
|                                      |                    |                |                                      |                    |                | BCAR3                                 | 4.692846311        | 2.398398404    | RHOBTB3                               | 5.0737691          | 1.702288179    |
|                                      |                    |                |                                      |                    |                | NR4A2                                 | 9.503426534        | 2.389168495    | INPP5F                                | 6.384659934        | 1.696602336    |
|                                      |                    |                |                                      |                    |                | GBP2                                  | 7.054763794        | 2.38456271     | NOP16                                 | 5.804187091        | 1.681792908    |
|                                      |                    |                |                                      |                    |                | MYO1E                                 | 5.63507329         | 2.377952086    | SLCTA1                                | 7.873790842        | 1.676978504    |
|                                      |                    |                |                                      |                    |                | IL6                                   | 6.701499708        | 2.37552723     | WDR4                                  | 6.416022106        | 1.660558744    |
|                                      |                    |                |                                      |                    |                | PHACTR1                               | 9.242322148        | 2.34556583     | NOP16                                 | 7.431372941        | 1.655550387    |
|                                      |                    |                |                                      |                    |                | SLC9B2                                | 6.270474304        | 2.312507892    | AKAP1                                 | 5.982978041        | 1.654519937    |
|                                      |                    |                |                                      |                    |                | IRAG2                                 | 8.373961721        | 2.306030286    | GPATCH4                               | 6.582385788        | 1.652964546    |
|                                      |                    |                |                                      |                    |                | RHOBTB3                               | 5.0737691          | 2.30302014     | GBP2                                  | 8.13442951         | 1.652154426    |
|                                      |                    |                |                                      |                    |                | NOP16                                 | 5.804167091        | 2.287611209    | MRT04                                 | 6.847328232        | 1.644442539    |
|                                      |                    |                |                                      |                    |                | GLA                                   | 8.209109585        | 2.273624307    | LRP8                                  | 6.306291583        | 1.635284953    |
|                                      |                    |                |                                      |                    |                | CD22                                  | 7.326917483        | 2.23305346     | AGMAT                                 | 5.431824718        | 1.607082019    |
|                                      |                    |                |                                      |                    |                | RIOK1                                 | 6.729854905        | 2.211154259    | AKAP1                                 | 7.68081867         | 1.596305251    |
|                                      |                    |                |                                      |                    |                | FABP5                                 | 7.031102028        | 2.210885537    | BCAR3                                 | 4.692846311        | 1.596254218    |
|                                      |                    |                |                                      |                    |                | BCAT1                                 | 5.312815006        | 2.210918673    | SLC3A3                                | 5.147549729        | 1.591540467    |
|                                      |                    |                |                                      |                    |                | IL21R                                 | 5.543546282        | 2.208657011    | PRDX4                                 | 7.703322789        | 1.584770671    |
|                                      |                    |                |                                      |                    |                | CCND2                                 | 8.303444206        | 2.207791326    | MACROD2                               | 5.956393841        | 1.556882359    |
|                                      |                    |                |                                      |                    |                | SLAMF1                                | 5.658167939        | 2.206494224    | NOLC1                                 | 7.618867293        | 1.529300911    |
|                                      |                    |                |                                      |                    |                | RAB20                                 | 7.024352451        | 2.204622567    | IL21R                                 | 6.38447323         | 1.527623995    |
|                                      |                    |                |                                      |                    |                | GEM                                   | 4.997310768        | 2.191165738    | FCRL5                                 | 7.312121214        | 1.51295853     |
|                                      |                    |                |                                      |                    |                | MMET                                  | 7.242950431        | 2.168903211    | PVT1                                  | 5.812041717        | 1.511393632    |
|                                      |                    |                |                                      |                    |                | HOMER1                                | 5.304877095        | 2.140786217    | WDR12                                 | 6.909336567        | 1.508920954    |
|                                      |                    |                |                                      |                    |                | SLAMF1                                | 6.860770586        | 2.122860493    | SLCTA1                                | 6.671957989        | 1.506887142    |
|                                      |                    |                |                                      |                    |                | SYNL2                                 | 5.479229577        | 2.117541264    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CCND2                                 | 5.060639603        | 2.115544026    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | ABRAQL                                | 6.344545644        | 2.108905057    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD200                                 | 7.365823173        | 2.106995302    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FCRL5                                 | 4.821582799        | 2.100161139    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | SYNL2                                 | 4.032035088        | 2.099514953    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FAM210A                               | 5.48849945         | 2.098153444    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | MTHFD2                                | 8.182719122        | 2.089219881    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NIN                                   | 6.945155526        | 2.081828155    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD84                                  | 5.383865796        | 2.049845464    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | GBP2                                  | 8.13442961         | 2.042813817    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | SLCTA1                                | 7.873790842        | 2.035297445    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FOSL2                                 | 6.648484803        | 2.033115701    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NOP16                                 | 7.431372941        | 2.028010182    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NIN                                   | 6.549281054        | 2.027397001    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | SLCTA1                                | 8.523073353        | 2.02642316     |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | IRAG2                                 | 9.384737765        | 2.019213545    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | AMIGO2                                | 6.327477719        | 2.002861555    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD22                                  | 8.621923203        | 1.998929034    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PAICS                                 | 7.663836693        | 1.997575168    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FOSL2                                 | 6.232523735        | 1.992178325    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NIN                                   | 5.632042273        | 1.991813625    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CR2                                   | 7.205567367        | 1.988785847    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | RHOBTB3                               | 4.693005679        | 1.989656057    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PDXFA                                 | 4.068047841        | 1.961935573    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NR4A1                                 | 8.847521322        | 1.944271221    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FOSB                                  | 7.192353927        | 1.932341633    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PAICS                                 | 6.355991541        | 1.930478741    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | SLC8B2                                | 6.132988321        | 1.926322435    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | DUSP4                                 | 6.656940923        | 1.923799854    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PTGER4                                | 5.931130542        | 1.910395988    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CCDC26                                | 6.484439755        | 1.910300179    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD200                                 | 7.697369122        | 1.909218778    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PHACTR1                               | 8.932336998        | 1.903708483    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | BZW2                                  | 8.234455024        | 1.891664048    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | BSPRY                                 | 4.739121153        | 1.88989668     |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD69                                  | 9.803181199        | 1.882980894    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | MIR104                                | 6.847328232        | 1.87586027     |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | RP2                                   | 7.171218923        | 1.872725317    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | KBTBD8                                | 7.219787528        | 1.8602097      |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NIN                                   | 5.79520953         | 1.856221182    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | MAFF                                  | 4.441915033        | 1.853027571    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | BYSL                                  | 6.100025788        | 1.841603992    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NOLC1                                 | 7.618867293        | 1.829657262    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | NOLC1                                 | 7.010671306        | 1.826942263    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PUS7                                  | 5.743811435        | 1.812653687    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | RRP15                                 | 5.623676633        | 1.812430529    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | CD274                                 | 4.997312705        | 1.802978374    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | TLCD3A                                | 5.085635885        | 1.801981735    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | SLC25A19                              | 7.511471452        | 1.794400318    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | FAM211A                               | 4.813896239        | 1.789292181    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | BTG3                                  | 5.976990547        | 1.788073875    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | LYAR                                  | 6.474921894        | 1.787478352    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PER2                                  | 6.700704973        | 1.787340195    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | GPATCH4                               | 6.582385768        | 1.783086322    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PKFYVE                                | 8.728284239        | 1.78174287     |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | BTG3                                  | 7.54602492         | 1.776760108    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | GGG2                                  | 8.654559021        | 1.774988814    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PRO1                                  | 7.450754892        | 1.772568767    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | HCI                                   | 4.618497694        | 1.772017726    |                                       |                    |                |
|                                      |                    |                |                                      |                    |                | PPAT                                  | 6.856634052        | 1.767400675    |                                       |                    |                |

|          |             |             |
|----------|-------------|-------------|
| CTPS1    | 5.8325318   | 1.731213556 |
| CD22     | 9.295531234 | 1.731145489 |
| GNPDA1   | 5.889250173 | 1.723498465 |
| SPAG9    | 7.289783126 | 1.722718362 |
| LTA      | 5.178608849 | 1.719684319 |
| TNF      | 7.35509762  | 1.712336535 |
| CYSTM1   | 7.619041474 | 1.703393449 |
| MAT2A    | 9.112164408 | 1.702341088 |
| WDR12    | 6.909536567 | 1.701294765 |
| TRAF1    | 5.71437607  | 1.698549117 |
| HK2      | 7.194933443 | 1.689516523 |
| GFOO1    | 3.992328334 | 1.688960168 |
| NETO1    | 4.376603072 | 1.68290384  |
| HIVEP3   | 6.841215043 | 1.68279132  |
| GPATCH4  | 7.462588819 | 1.676078808 |
| ZC3H8    | 6.864607214 | 1.673149001 |
| WDR61    | 5.063950771 | 1.668538002 |
| PARP9    | 6.038631405 | 1.664860637 |
| WDR3     | 6.316626201 | 1.660738645 |
| POLR1B   | 6.452527115 | 1.657283308 |
| SLC25A33 | 6.689895764 | 1.653274774 |
| MAT2A    | 7.278260103 | 1.651438077 |
| MAPK43   | 3.95532011  | 1.649609567 |
| PHACTR1  | 8.001430376 | 1.646868784 |
| GOT1     | 7.17823685  | 1.645733205 |
| LY9      | 8.429030058 | 1.645036788 |
| SLC43A3  | 6.560352545 | 1.644006374 |
| RGS10    | 6.368626982 | 1.640384373 |
| DDX21    | 10.3582028  | 1.629364106 |
| ADCY3    | 5.172704401 | 1.622943339 |
| SACS     | 4.95728263  | 1.622550417 |
| SLC16A1  | 6.671957989 | 1.619458836 |
| NOLC1    | 8.935433139 | 1.617188068 |
| AMD 1.00 | 8.0782381   | 1.617088463 |
| PGW      | 4.181192896 | 1.61662471  |
| SNX9     | 8.691821578 | 1.610666033 |
| EDH1     | 6.913688906 | 1.604707319 |
| SLC39A14 | 6.032948646 | 1.601771895 |
| RHOBTB3  | 3.706377447 | 1.601447786 |
| LY9      | 10.59774872 | 1.601258186 |
| AMD 1.00 | 6.911272589 | 1.599412705 |
| TWNK     | 5.612335659 | 1.592170712 |
| UTN      | 7.549186356 | 1.587351052 |
| SN29     | 9.791106667 | 1.586335269 |
| RRAGD    | 3.908665515 | 1.585251937 |
| CRY1     | 4.861060596 | 1.577466422 |
| WDR43    | 5.324099058 | 1.576799332 |
| FAR5B    | 5.998501445 | 1.575549085 |
| PRF      | 6.823503481 | 1.572415882 |
| CD64     | 5.492381875 | 1.572359698 |
| UCK2     | 5.608186432 | 1.571052234 |
| NFATC1   | 5.285963332 | 1.569649205 |
| NAMPT    | 6.897711082 | 1.568872555 |
| NETO2    | 5.201904599 | 1.567495223 |
| PAK1IP1  | 5.566235547 | 1.562120057 |
| VSRH     | 6.806034334 | 1.561276353 |
| ABCE1    | 7.112723263 | 1.560536116 |
| PRRC1    | 6.992928181 | 1.560486458 |
| OTUD1    | 7.088129695 | 1.55956863  |
| NFKBIE   | 8.011102871 | 1.55704571  |
| STX11    | 5.050477393 | 1.555338786 |
| ZNF165   | 5.286677974 | 1.553853068 |
| UTN      | 7.894799639 | 1.553788162 |
| FOSL2    | 5.938342386 | 1.549022238 |
| LY9      | 10.44858555 | 1.548923734 |
| RNF19A   | 7.711308555 | 1.54643491  |
| BCL2     | 5.239173219 | 1.539902634 |
| SLC20A1  | 7.883567811 | 1.536466176 |
| GNG2     | 7.550860863 | 1.533555346 |
| NSMAF    | 5.601424536 | 1.528931726 |
| SPAG9    | 6.62428657  | 1.527695296 |
| GNL2     | 6.74370064  | 1.521966654 |
| RAB8B    | 5.854435232 | 1.521510763 |
| CD22     | 5.465764908 | 1.518257041 |
| SNHG15   | 7.422141095 | 1.516590952 |
| IRF4     | 9.864368108 | 1.515050657 |
| DNK33    | 7.179019549 | 1.514139466 |
| GZF1     | 6.023266181 | 1.511950233 |
| RILPL2   | 7.810831297 | 1.511709903 |
| ADARB1   | 5.037798705 | 1.508776886 |
| DUSP3    | 5.343216084 | 1.507422649 |
| EBNA1BP2 | 5.673996594 | 1.506809598 |
| GFOO1    | 7.798040227 | 1.506534714 |
| PLPP5    | 7.742199773 | 1.505114331 |