**Supplementary Table 1. Different expression of circRNAs in D-galactose induced senescent astrocyte (D2 vs. D0, *p* < 0.05 and more than 1.5 fold changes).**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **circRNA\_ID** | **Gene** | **Foldchange** | **PValue** | **FDR** | **D0** | **D2** |
| chr2\_57320683\_57321619\_+ | not\_annotated | 309.8658 | 0.0001 | 0.1088 | 0.0000 | 0.7208 |
| chr3\_148837814\_148855356\_+ | not\_annotated | 251.9534 | 0.0004 | 0.1237 | 0.0000 | 0.5857 |
| chr12\_40307165\_40332371\_- | not\_annotated | 213.3452 | 0.0008 | 0.1237 | 0.0000 | 0.4956 |
| chr14\_69800154\_69851538\_+ | not\_annotated | 160.2589 | 0.0026 | 0.1237 | 0.0000 | 0.3717 |
| chr1\_214562895\_214581660\_+ | Ap2a2 | 150.6069 | 0.0033 | 0.1237 | 0.0000 | 0.3491 |
| chr10\_73574684\_73593919\_- | not\_annotated | 150.6069 | 0.0033 | 0.1237 | 0.0000 | 0.3491 |
| chr6\_38487243\_38497244\_+ | not\_annotated | 150.6069 | 0.0033 | 0.1237 | 0.0000 | 0.3491 |
| chr10\_64425984\_64431795\_- | Nxn | 145.7808 | 0.0037 | 0.1237 | 0.0000 | 0.3379 |
| chr7\_109055032\_109071915\_- | Zfat | 145.7808 | 0.0037 | 0.1237 | 0.0000 | 0.3379 |
| chr1\_21142145\_21149467\_+ | Akap7 | 126.4767 | 0.0061 | 0.1237 | 0.0000 | 0.2928 |
| chr3\_55655527\_55655836\_+ | not\_annotated | 126.4767 | 0.0061 | 0.1237 | 0.0000 | 0.2928 |
| chr5\_128083027\_128083901\_+ | Zcchc11 | 126.4767 | 0.0061 | 0.1237 | 0.0000 | 0.2928 |
| chr1\_219353460\_219354165\_+ | Pitpnm1 | 121.6507 | 0.0070 | 0.1237 | 0.0000 | 0.2816 |
| chr20\_55285814\_55286373\_+ | Ascc3 | 121.6507 | 0.0070 | 0.1237 | 0.0000 | 0.2816 |
| chr4\_131366412\_131382968\_- | Foxp1 | 116.8247 | 0.0080 | 0.1237 | 0.0000 | 0.2703 |
| chr5\_90854404\_90892934\_+ | Kdm4c | 116.8247 | 0.0080 | 0.1237 | 0.0000 | 0.2703 |
| chr10\_74780116\_74786920\_+ | not\_annotated | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr13\_52563717\_52563763\_+ | Csrp1 | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr15\_48231960\_48241781\_- | not\_annotated | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr15\_51936366\_51954838\_- | Ppp3cc | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr2\_209143856\_209152642\_- | Cept1 | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr2\_33950934\_33964824\_- | not\_annotated | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr4\_8141791\_8149019\_+ | Srpk2 | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr9\_37910962\_37923009\_- | not\_annotated | 111.9986 | 0.0091 | 0.1237 | 0.0000 | 0.2590 |
| chr10\_70525504\_70540046\_+ | Ap2b1 | 107.1726 | 0.0104 | 0.1251 | 0.0000 | 0.2478 |
| chr16\_9650675\_9658531\_- | Mapk8 | 107.1726 | 0.0104 | 0.1251 | 0.0000 | 0.2478 |
| chr19\_34233020\_34253181\_+ | Arhgap10 | 107.1726 | 0.0104 | 0.1251 | 0.0000 | 0.2478 |
| chr19\_54786578\_54790907\_+ | Banp | 107.1726 | 0.0104 | 0.1251 | 0.0000 | 0.2478 |
| chr14\_79973875\_79978835\_- | Afap1 | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr16\_46423837\_46453117\_+ | Tenm3 | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr19\_54803498\_54815443\_+ | Banp | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr2\_187525295\_187529234\_+ | Mef2d | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr3\_91122599\_91173631\_- | RGD1309730 | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr5\_172559363\_172563049\_- | not\_annotated | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr6\_100396828\_100397255\_+ | Fut8 | 102.3466 | 0.0120 | 0.1417 | 0.0000 | 0.2365 |
| chr13\_51163205\_51166706\_- | Ppfia4 | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr14\_15086543\_15112209\_+ | Cnot6l | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr14\_7782502\_7783047\_- | Ptpn13 | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr18\_24551137\_24551581\_+ | Ammecr1l | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr2\_34373875\_34517560\_+ | not\_annotated | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr8\_109192353\_109216053\_+ | Stag1 | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr8\_64635061\_64648503\_+ | Myo9a | 97.5206 | 0.0138 | 0.1595 | 0.0000 | 0.2253 |
| chr1\_30711411\_30718495\_+ | Rspo3 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr10\_67398229\_67401836\_- | Crlf3 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr11\_16848640\_16852898\_+ | Cxadr | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr12\_24493013\_24498590\_- | Baz1b | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr13\_95098506\_95128782\_- | Akt3 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr17\_18369555\_18375993\_+ | Nup153 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr17\_599906\_610676\_+ | Npepo | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr2\_197906758\_197913548\_- | not\_annotated | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr2\_22950023\_22957449\_+ | Homer1 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr3\_112722217\_112728973\_- | Ttbk2 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr3\_112885985\_112899649\_- | Ubr1 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr3\_81909221\_81910484\_- | Prdm11 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr4\_67299951\_67301045\_- | not\_annotated | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr5\_127160496\_127165240\_+ | not\_annotated | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr5\_81000430\_81032096\_+ | Pappa | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr6\_38617368\_38641066\_+ | not\_annotated | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr8\_118066987\_118085473\_+ | Map4 | 92.6945 | 0.0160 | 0.1753 | 0.0000 | 0.2140 |
| chr1\_13262070\_13268495\_+ | Reps1 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr1\_146108193\_146121004\_- | not\_annotated | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr12\_12721643\_12722477\_- | Pms2 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr14\_79987348\_79987917\_- | Afap1 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr17\_77658462\_77665709\_- | Frmd4a | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr18\_48505040\_48521166\_+ | not\_annotated | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr2\_39028857\_39042852\_- | not\_annotated | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr4\_115624887\_115626399\_+ | Zfp638 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr4\_77219610\_77235733\_+ | Cul1 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr5\_144292767\_144294689\_+ | Trappc3 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr7\_50218839\_50232687\_- | Syt1 | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chrX\_24915725\_24919260\_+ | not\_annotated | 87.8685 | 0.0185 | 0.1856 | 0.0000 | 0.2027 |
| chr1\_178944537\_178955232\_- | Rras2 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr1\_206186518\_206220473\_- | not\_annotated | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr10\_93438715\_93451644\_+ | Tlk2 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr11\_31822239\_31830066\_+ | Son | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr11\_46926229\_46930035\_- | Senp7 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr14\_20749845\_20806363\_- | Slc4a4 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr15\_70790038\_70792497\_+ | Tdrd3 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr16\_8396763\_8421217\_+ | Parg | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr2\_166406958\_166423542\_+ | Nmd3 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr3\_54547246\_54554495\_- | Stk39 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr4\_58420810\_58500197\_- | not\_annotated | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr5\_13070551\_13076754\_- | Rb1cc1 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr6\_75959532\_75965681\_- | RGD1304624 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr8\_127980931\_127991861\_- | Oxsr1 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr9\_113386175\_113446886\_- | Rab31 | 83.0425 | 0.0215 | 0.2091 | 0.0000 | 0.1915 |
| chr10\_30169237\_30185941\_+ | Rnf145 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr11\_71056741\_71074618\_- | not\_annotated | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr12\_13862434\_13863429\_+ | Tnrc18 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr14\_10869900\_10877652\_+ | Sec31a | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr19\_34233020\_34272145\_+ | Arhgap10 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr2\_119233000\_119247743\_+ | Usp13 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr3\_12306722\_12330607\_- | not\_annotated | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr4\_62300390\_62302914\_+ | not\_annotated | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr6\_22053425\_22067568\_- | Birc6 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr7\_64953167\_64961215\_- | Irak3 | 78.2164 | 0.0250 | 0.2352 | 0.0000 | 0.1802 |
| chr1\_102656457\_102660697\_- | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr1\_164931730\_164953043\_- | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr1\_221065774\_221067559\_- | Ehbp1l1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr1\_45923228\_45983943\_+ | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr1\_45983794\_46014665\_+ | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr11\_72210571\_72229110\_- | Dlg1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr12\_51937846\_51945222\_+ | Pus1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr13\_60462943\_60484400\_- | Cdc73 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr14\_54840654\_54869803\_- | Pcdh7 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr18\_24448523\_24449151\_+ | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr2\_113739689\_113745181\_+ | Pld1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr20\_27756689\_27757153\_- | Dse | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr3\_123031311\_123032173\_+ | Ptpra | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr3\_150696432\_150725392\_+ | Itch | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr4\_148048163\_148052917\_- | not\_annotated | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr4\_25963495\_25978767\_+ | Cdk14 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr5\_80973382\_80985660\_+ | Pappa | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr7\_50173693\_50278844\_- | Syt1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr8\_21663861\_21664122\_+ | Ubl5 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr8\_70524346\_70542478\_+ | Dpp8 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr9\_42780403\_42791956\_- | Uggt1 | 73.3904 | 0.0292 | 0.2641 | 0.0000 | 0.1689 |
| chr1\_163938955\_163976846\_- | Uvrag | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr1\_164025518\_164055455\_- | Uvrag | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr1\_216737401\_216742438\_- | Nap1l4 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr1\_239293164\_239299795\_+ | Abhd17b | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr1\_257488392\_257491755\_- | Noc3l | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr10\_110157631\_110164041\_- | Csnk1d | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr10\_86175962\_86184480\_+ | Cdk12 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr13\_86432220\_86451001\_- | Pbx1 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr14\_16345395\_16358572\_+ | Ccni | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr16\_27503252\_27517477\_+ | Tll1 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr18\_69642130\_69657373\_- | Smad4 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr19\_34292209\_34305849\_+ | Arhgap10 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr2\_189364002\_189369293\_- | Atp8b2 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr2\_218896348\_218929338\_- | Slc30a7 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr3\_160392920\_160396721\_+ | Ywhab | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr3\_56172538\_56181510\_+ | not\_annotated | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr3\_64072520\_64095111\_- | Sestd1 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr4\_127663314\_127673795\_- | Suclg2 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr4\_152265847\_152298116\_- | Erc1 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr4\_170518672\_170526305\_+ | not\_annotated | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr4\_58469325\_58500197\_- | not\_annotated | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr4\_6219912\_6230020\_+ | not\_annotated | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr5\_148050939\_148057784\_+ | Ptp4a2 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr5\_157690578\_157712883\_+ | Capzb | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr5\_76699783\_76728269\_- | Ptbp3 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr5\_90818736\_90827570\_+ | Kdm4c | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr6\_123404372\_123405248\_- | Foxn3 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr6\_22044898\_22067568\_- | Birc6 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr7\_31849489\_31858804\_- | Tmpo | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr8\_128807474\_128808790\_+ | Rpsa | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr8\_759958\_776054\_+ | Gucy1a2 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr8\_76903859\_76904745\_- | Rnf111 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr9\_66885432\_66889912\_+ | Carf | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr9\_81734340\_81749099\_- | not\_annotated | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chrX\_62537349\_62570599\_- | Pola1 | 68.5644 | 0.0343 | 0.2888 | 0.0000 | 0.1577 |
| chr1\_189560181\_189595749\_+ | Exnef | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr1\_21142145\_21211619\_+ | Akap7 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr1\_221308010\_221311604\_- | Pola2 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr10\_52228530\_52270583\_- | Map2k4 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr10\_59279375\_59281717\_+ | Ankfy1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr10\_95029081\_95044344\_- | Smurf2 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr11\_47165426\_47169764\_+ | Cep97 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr12\_13600118\_13612054\_+ | Rnf216 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr12\_6934423\_6944194\_- | Uspl1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr13\_95120752\_95196402\_- | Akt3 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr14\_20553224\_20559770\_- | Slc4a4 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr14\_2679717\_2680685\_- | Mtf2 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr15\_23840157\_23848858\_+ | Samd4a | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr15\_4392150\_4396767\_- | Fam149b1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr15\_54430708\_54444565\_- | Fndc3a | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr16\_80662286\_80665957\_+ | Erich1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr19\_34249087\_34312530\_+ | Arhgap10 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr19\_34346074\_34372833\_+ | Arhgap10 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr2\_34373875\_34503654\_+ | not\_annotated | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr3\_119296641\_119302965\_- | Trpm7 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr3\_133012095\_133016541\_- | Tasp1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr3\_149844190\_149866492\_- | Cdk5rap1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr3\_21721366\_21736929\_+ | Rabgap1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr3\_21894168\_21904269\_- | Strbp | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr4\_19289720\_19349870\_- | Sema3d | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr5\_102528780\_102689769\_- | Bnc2 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr5\_102552742\_102689769\_- | Bnc2 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr5\_28049976\_28063547\_- | Slc26a7 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr5\_92902514\_92962848\_- | not\_annotated | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr6\_108248261\_108249918\_+ | not\_annotated | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr6\_129621583\_129660096\_+ | Papola | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr6\_22362488\_22399107\_+ | Memo1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr6\_80306621\_80307306\_- | Fbxo33 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr8\_78521649\_78538216\_- | Tcf12 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr9\_111630473\_111632154\_+ | not\_annotated | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr9\_51400307\_51412180\_+ | Gulp1 | 63.7384 | 0.0405 | 0.3224 | 0.0000 | 0.1464 |
| chr1\_144463965\_144495637\_+ | Adamtsl3 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr1\_192089780\_192095234\_+ | Dctn5 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr1\_200606971\_200615170\_- | Fgfr2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr1\_80828696\_80831295\_- | PVR | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr1\_89972723\_89975077\_- | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr13\_35658619\_35669017\_- | Epb4.1l5 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr13\_77048275\_77051919\_+ | Rfwd2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr13\_83634263\_83660292\_- | Dcaf6 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr13\_90533362\_90564123\_+ | Dcaf8 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr14\_20749845\_20806514\_- | Slc4a4 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr14\_7258926\_7265066\_- | Aff1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr14\_81301797\_81329508\_- | Grk4 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr16\_46262257\_46453117\_+ | Tenm3 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr17\_19160994\_19225009\_+ | Atxn1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr17\_63265406\_63292101\_+ | Larp4b | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr18\_51623122\_51624243\_- | Aldh7a1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr18\_81170024\_81289889\_- | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr19\_34310750\_34346224\_+ | Arhgap10 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr19\_43119868\_43124021\_- | Pdpr | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr19\_55728917\_55795237\_- | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr2\_178368596\_178375441\_- | Etfdh | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr2\_221062375\_221078819\_- | Snx7 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr2\_22946430\_22964734\_+ | Homer1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr2\_231078900\_231128709\_+ | Camk2d | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr3\_13919475\_13925763\_- | Psmd5 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr3\_157028112\_157040380\_- | Chd6 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr3\_171861693\_171866264\_+ | Vapb | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr3\_67773497\_67787987\_- | Nckap1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_139379737\_139401879\_+ | Scmh1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_154211165\_154213194\_+ | Srsf10 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_159691388\_159702524\_+ | Fbxo42 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_43607057\_43661144\_+ | Epha7 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_60992103\_60994327\_- | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_64346707\_64388248\_+ | Tmeff1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_71790897\_71792149\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_72130035\_72136205\_+ | Rad23b | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr5\_90815777\_90827570\_+ | Kdm4c | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr6\_104466414\_104475259\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr6\_86729142\_86748180\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr7\_114363234\_114377276\_- | Ago2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr7\_114550936\_114573932\_- | Ptk2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr7\_114550936\_114611317\_- | Ptk2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr7\_41167312\_41178782\_+ | Atp2b1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr7\_90276501\_90277429\_- | Trps1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr8\_109243253\_109288160\_+ | Stag1 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr8\_109302672\_109306182\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr8\_26518227\_26519927\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr8\_60059164\_60076960\_- | Etfa | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr8\_64610881\_64623043\_+ | Myo9a | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr9\_73752937\_73773659\_- | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chrX\_112033981\_112034696\_+ | Mid2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chrX\_128550177\_128558306\_+ | Stag2 | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chrX\_52581092\_52617512\_+ | not\_annotated | 58.9123 | 0.0479 | 0.3457 | 0.0000 | 0.1352 |
| chr14\_20749845\_20769564\_- | Slc4a4 | 18.2601 | 0.0003 | 0.1237 | 0.1702 | 1.0362 |
| chr2\_38096882\_38110573\_- | not\_annotated | 12.9132 | 0.0020 | 0.1237 | 0.1702 | 0.7321 |
| chr4\_133073964\_133094100\_- | Shq1 | 11.9230 | 0.0029 | 0.1237 | 0.1702 | 0.6758 |
| chr5\_167486001\_167558250\_+ | Rere | 11.3289 | 0.0038 | 0.1237 | 0.1702 | 0.6420 |
| chr7\_132681520\_132700523\_- | Slc2a13 | 10.9329 | 0.0044 | 0.1237 | 0.1702 | 0.6194 |
| chr18\_77466020\_77520779\_- | Atp9b | 9.5466 | 0.0080 | 0.1237 | 0.1702 | 0.5406 |
| chr6\_144189453\_144275272\_+ | not\_annotated | 8.5126 | 0.0025 | 0.1237 | 0.3404 | 0.9461 |
| chr20\_27756685\_27757153\_- | Dse | 7.9624 | 0.0167 | 0.1827 | 0.1702 | 0.4505 |
| chr7\_76801989\_76809117\_- | not\_annotated | 7.9624 | 0.0167 | 0.1827 | 0.1702 | 0.4505 |
| chr18\_5191058\_5194413\_- | Zfp521 | 7.7643 | 0.0184 | 0.1856 | 0.1702 | 0.4392 |
| chr6\_132068857\_132075882\_- | not\_annotated | 7.7643 | 0.0184 | 0.1856 | 0.1702 | 0.4392 |
| chr5\_12156802\_12172003\_- | Pcmtd1 | 7.5663 | 0.0203 | 0.2022 | 0.1702 | 0.4280 |
| chr1\_265396240\_265401005\_- | Fbxw4 | 7.3683 | 0.0223 | 0.2156 | 0.1702 | 0.4167 |
| chr14\_14181436\_14192047\_- | not\_annotated | 7.3683 | 0.0223 | 0.2156 | 0.1702 | 0.4167 |
| chr3\_122318077\_122318825\_+ | Stk35 | 7.3683 | 0.0223 | 0.2156 | 0.1702 | 0.4167 |
| chr9\_73766839\_73773659\_- | not\_annotated | 7.1702 | 0.0246 | 0.2352 | 0.1702 | 0.4055 |
| chr13\_95003382\_95013012\_+ | Sdccag8 | 6.9722 | 0.0272 | 0.2541 | 0.1702 | 0.3942 |
| chr1\_274700623\_274718538\_+ | Shoc2 | 6.7742 | 0.0301 | 0.2705 | 0.1702 | 0.3829 |
| chr20\_13906484\_13921285\_+ | Cabin1 | 6.7742 | 0.0301 | 0.2705 | 0.1702 | 0.3829 |
| chr6\_3116549\_3130068\_- | Sos1 | 6.7742 | 0.0301 | 0.2705 | 0.1702 | 0.3829 |
| chr2\_39021037\_39042852\_- | not\_annotated | 6.5972 | 0.0038 | 0.1237 | 0.5105 | 1.0925 |
| chr18\_59190041\_59209831\_+ | Wdr7 | 6.5761 | 0.0333 | 0.2888 | 0.1702 | 0.3717 |
| chr2\_39042496\_39042852\_- | not\_annotated | 6.5761 | 0.0333 | 0.2888 | 0.1702 | 0.3717 |
| chrX\_4876505\_4898806\_- | not\_annotated | 6.5761 | 0.0333 | 0.2888 | 0.1702 | 0.3717 |
| chr19\_9973288\_10006609\_+ | Csnk2a2 | 6.3781 | 0.0369 | 0.3081 | 0.1702 | 0.3604 |
| chr5\_167486001\_167615430\_+ | Rere | 6.3781 | 0.0369 | 0.3081 | 0.1702 | 0.3604 |
| chr5\_76692539\_76728269\_- | Ptbp3 | 6.3781 | 0.0369 | 0.3081 | 0.1702 | 0.3604 |
| chr18\_28042792\_28048198\_+ | Ctnna1 | 6.2886 | 0.0110 | 0.1312 | 0.3404 | 0.6983 |
| chr7\_129696842\_129708614\_- | Brd1 | 6.1900 | 0.0053 | 0.1237 | 0.5105 | 1.0249 |
| chr10\_73980841\_73985026\_- | Vmp1 | 6.1801 | 0.0409 | 0.3246 | 0.1702 | 0.3491 |
| chr4\_49207203\_49287862\_+ | not\_annotated | 6.1801 | 0.0409 | 0.3246 | 0.1702 | 0.3491 |
| chr5\_144931944\_144932532\_- | Zmym4 | 6.1801 | 0.0409 | 0.3246 | 0.1702 | 0.3491 |
| chr18\_81170024\_81208554\_- | not\_annotated | 5.9820 | 0.0455 | 0.3457 | 0.1702 | 0.3379 |
| chr5\_148546311\_148556027\_- | Zcchc17 | 5.9820 | 0.0455 | 0.3457 | 0.1702 | 0.3379 |
| chr1\_204960841\_204961691\_+ | not\_annotated | 5.9464 | 0.0024 | 0.1237 | 0.8509 | 1.6331 |
| chr2\_33933956\_33955969\_- | not\_annotated | 5.7827 | 0.0043 | 0.1237 | 0.6807 | 1.2727 |
| chr1\_163203870\_163216364\_- | not\_annotated | 5.3787 | 0.0214 | 0.2091 | 0.3404 | 0.5969 |
| chr1\_246784973\_246785456\_- | not\_annotated | 5.2777 | 0.0231 | 0.2223 | 0.3404 | 0.5857 |
| chr17\_76250434\_76265943\_- | Upf2 | 5.1766 | 0.0250 | 0.2352 | 0.3404 | 0.5744 |
| chr15\_23840157\_23853169\_+ | Samd4a | 4.9744 | 0.0292 | 0.2641 | 0.3404 | 0.5519 |
| chr3\_80718406\_80732927\_+ | Ambra1 | 4.9744 | 0.0292 | 0.2641 | 0.3404 | 0.5519 |
| chr5\_160066006\_160070914\_- | LOC690911 | 4.9005 | 0.0162 | 0.1778 | 0.5105 | 0.8109 |
| chr3\_423701\_431925\_- | Spopl | 4.6711 | 0.0371 | 0.3090 | 0.3404 | 0.5181 |
| chr4\_50180977\_50200342\_- | Aass | 4.6682 | 0.0055 | 0.1237 | 1.1912 | 1.7908 |
| chr15\_70098761\_70139170\_- | Diaph3 | 4.6291 | 0.0209 | 0.2080 | 0.5105 | 0.7659 |
| chr5\_167486001\_167526275\_+ | Rere | 4.6078 | 0.0137 | 0.1595 | 0.6807 | 1.0136 |
| chr6\_871525\_872927\_+ | Crim1 | 4.5567 | 0.0144 | 0.1664 | 0.6807 | 1.0024 |
| chr12\_30082881\_30083826\_- | Tpst1 | 4.4689 | 0.0436 | 0.3412 | 0.3404 | 0.4956 |
| chr3\_113846735\_113862070\_+ | Casc4 | 4.4689 | 0.0436 | 0.3412 | 0.3404 | 0.4956 |
| chr3\_33003598\_33006797\_+ | Acvr2a | 4.4689 | 0.0436 | 0.3412 | 0.3404 | 0.4956 |
| chrX\_63177769\_63182385\_- | Zfx | 4.4122 | 0.0055 | 0.1237 | 1.5316 | 2.1737 |
| chr10\_16724062\_16730140\_- | Crebrf | 4.4035 | 0.0170 | 0.1851 | 0.6807 | 0.9686 |
| chr2\_22950023\_23000600\_+ | Homer1 | 4.3678 | 0.0474 | 0.3457 | 0.3404 | 0.4843 |
| chr12\_51582921\_51584301\_- | not\_annotated | 4.3576 | 0.0270 | 0.2529 | 0.5105 | 0.7208 |
| chr16\_40469880\_40483041\_- | Vegfc | 4.2219 | 0.0308 | 0.2765 | 0.5105 | 0.6983 |
| chr1\_200648164\_200671090\_- | Fgfr2 | 4.1540 | 0.0329 | 0.2888 | 0.5105 | 0.6870 |
| chr11\_24547990\_24550752\_- | App | 4.1481 | 0.0223 | 0.2156 | 0.6807 | 0.9123 |
| chr19\_34292209\_34346224\_+ | Arhgap10 | 4.1481 | 0.0223 | 0.2156 | 0.6807 | 0.9123 |
| chr20\_8006289\_8019015\_- | Fkbp5 | 4.0861 | 0.0352 | 0.2950 | 0.5105 | 0.6758 |
| chr5\_43659900\_43661144\_+ | Epha7 | 4.0147 | 0.0045 | 0.1237 | 3.2333 | 4.1672 |
| chr9\_112406660\_112412113\_+ | Man2a1 | 3.8988 | 0.0221 | 0.2146 | 0.8509 | 1.0699 |
| chr5\_76925720\_76926914\_+ | not\_annotated | 3.8825 | 0.0430 | 0.3376 | 0.5105 | 0.6420 |
| chrX\_139736501\_139737195\_- | Gpc3 | 3.8825 | 0.0430 | 0.3376 | 0.5105 | 0.6420 |
| chr1\_165646261\_165654319\_+ | Rab6a | 3.7652 | 0.0066 | 0.1237 | 3.2333 | 3.9081 |
| chr8\_94725468\_94730732\_+ | Cyb5r4 | 3.7468 | 0.0493 | 0.3483 | 0.5105 | 0.6194 |
| chr10\_95327724\_95328546\_- | not\_annotated | 3.7350 | 0.0269 | 0.2519 | 0.8509 | 1.0249 |
| chr17\_81177595\_81187710\_- | Hacd1 | 3.6650 | 0.0070 | 0.1237 | 3.7439 | 4.4037 |
| chr13\_26277463\_26280241\_+ | Phlpp1 | 3.4074 | 0.0282 | 0.2633 | 1.1912 | 1.3065 |
| chrX\_63177769\_63195572\_- | Zfx | 3.3599 | 0.0172 | 0.1851 | 2.2123 | 2.3877 |
| chr16\_26755422\_26780008\_+ | not\_annotated | 3.3432 | 0.0271 | 0.2533 | 1.3614 | 1.4641 |
| chr11\_3142305\_3142832\_+ | not\_annotated | 3.3220 | 0.0371 | 0.3090 | 1.0211 | 1.0925 |
| chr4\_168514863\_168517342\_- | Dusp16 | 3.1384 | 0.0196 | 0.1961 | 3.0632 | 3.0860 |
| chr17\_81173780\_81187710\_- | Hacd1 | 3.1244 | 0.0266 | 0.2499 | 2.0421 | 2.0498 |
| chr8\_127971477\_127991861\_- | Oxsr1 | 3.0648 | 0.0368 | 0.3081 | 1.5316 | 1.5092 |
| chr14\_69800154\_69819258\_+ | not\_annotated | 3.0069 | 0.0202 | 0.2019 | 4.4246 | 4.2685 |
| chr17\_63849305\_63879166\_- | Zmynd11 | 2.9559 | 0.0247 | 0.2352 | 3.5737 | 3.3901 |
| chr11\_89108654\_89110961\_- | Spidr | 2.9025 | 0.0406 | 0.3232 | 1.8719 | 1.7457 |
| chr3\_94396940\_94398038\_- | Hipk3 | 2.6806 | 0.0247 | 0.2352 | 29.4404 | 25.2959 |
| chr8\_54584699\_54584881\_- | not\_annotated | -2.8143 | 0.0424 | 0.3332 | 3.5737 | 0.4055 |
| chr13\_110049191\_110052621\_- | Ppp2r5a | -2.8898 | 0.0493 | 0.3483 | 2.5526 | 0.2816 |
| chr17\_36610259\_36627167\_+ | not\_annotated | -3.2065 | 0.0346 | 0.2904 | 2.3825 | 0.2365 |
| chr18\_13352206\_13404495\_+ | not\_annotated | -3.3185 | 0.0092 | 0.1237 | 11.9123 | 1.1488 |
| chr9\_20811699\_20817197\_+ | Cd2ap | -3.3891 | 0.0329 | 0.2888 | 2.0421 | 0.1915 |
| chr10\_110680099\_110690679\_+ | Tbcd | -3.423 | 0.0394 | 0.3224 | 1.7018 | 0.1577 |
| chr1\_174609600\_174613577\_- | Tmem41b | -3.4752 | 0.0494 | 0.3488 | 1.3614 | 0.1239 |
| chr3\_2030744\_2032401\_- | Ehmt1 | -3.6049 | 0.0196 | 0.1961 | 2.5526 | 0.2253 |
| chr14\_92417430\_92474733\_- | Cobl | -3.7041 | 0.0483 | 0.3457 | 1.1912 | 0.1014 |
| chr5\_106109624\_106121498\_- | Mllt3 | -3.7041 | 0.0483 | 0.3457 | 1.1912 | 0.1014 |
| chr3\_104816866\_104818862\_+ | not\_annotated | -3.9072 | 0.0284 | 0.2641 | 1.5316 | 0.1239 |
| chr12\_24513410\_24524704\_- | Baz1b | -4.0601 | 0.0461 | 0.3457 | 1.0211 | 0.0788 |
| chr3\_148837814\_148842440\_+ | not\_annotated | -4.0601 | 0.0461 | 0.3457 | 1.0211 | 0.0788 |
| chr1\_185306404\_185307538\_+ | Pik3c2a | -4.1275 | 0.0058 | 0.1237 | 4.0842 | 0.3154 |
| chr3\_91713775\_91725977\_- | not\_annotated | -4.1554 | 0.0340 | 0.2888 | 1.1912 | 0.0901 |
| chr7\_73834044\_73848871\_- | Stk3 | -4.3908 | 0.0050 | 0.1237 | 3.5737 | 0.2590 |
| chr1\_255942367\_255958835\_- | Ide | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr11\_79763901\_79778947\_- | not\_annotated | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr17\_36113611\_36121325\_- | Mboat1 | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr2\_34574151\_34576926\_+ | not\_annotated | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr4\_5722369\_5724008\_- | not\_annotated | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr5\_62114349\_62121690\_+ | Nans | -4.6896 | 0.0420 | 0.3305 | 0.8509 | 0.0563 |
| chr3\_47474984\_47491882\_+ | Tank | -4.732 | 0.0227 | 0.2189 | 1.1912 | 0.0788 |
| chr6\_132383344\_132391018\_+ | Eml1 | -4.732 | 0.0227 | 0.2189 | 1.1912 | 0.0788 |
| chr8\_439822\_456940\_+ | Gucy1a2 | -4.7454 | 0.0176 | 0.1851 | 1.3614 | 0.0901 |
| chr1\_249224694\_249230036\_- | Prkg1 | -5.6195 | 0.0184 | 0.1856 | 1.0211 | 0.0563 |
| chr13\_25740800\_25748576\_+ | RGD1307235 | -5.8042 | 0.0245 | 0.2351 | 0.8509 | 0.0451 |
| chr9\_69854064\_69868399\_- | Ino80d | -5.8042 | 0.0245 | 0.2351 | 0.8509 | 0.0451 |
| chr5\_166066342\_166067876\_- | Kif1b | -6.0758 | 0.0058 | 0.1237 | 1.5316 | 0.0788 |
| chr1\_175714102\_175714982\_- | Mrvi1 | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr1\_259479327\_259488326\_- | not\_annotated | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr1\_266201079\_266206952\_+ | Sufu | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr13\_99143758\_99146830\_+ | Sde2 | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr18\_15347145\_15352616\_+ | Trappc8 | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr18\_44477275\_44483422\_+ | not\_annotated | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr18\_6026794\_6051719\_- | Ss18 | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr7\_114523676\_114540933\_- | Ptk2 | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr7\_18533478\_18535599\_- | Hnrnpm | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr7\_72802496\_72804218\_+ | Mtdh | -6.1041 | 0.0339 | 0.2888 | 0.6807 | 0.0338 |
| chr17\_19160994\_19250082\_+ | Atxn1 | -6.2745 | 0.0068 | 0.1237 | 1.3614 | 0.0676 |
| chr3\_3785953\_3786880\_+ | Gpsm1 | -6.2745 | 0.0068 | 0.1237 | 1.3614 | 0.0676 |
| chr19\_34266719\_34272145\_+ | Arhgap10 | -6.5155 | 0.0027 | 0.1237 | 1.8719 | 0.0901 |
| chr2\_231383147\_231409493\_- | not\_annotated | -6.5495 | 0.0082 | 0.1237 | 1.1912 | 0.0563 |
| chr1\_128526649\_128586111\_- | Lrrc28 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr10\_96720686\_96722491\_+ | Cep112 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr11\_87574249\_87591013\_- | Med15 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr12\_24271680\_24278827\_+ | Hip1 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr13\_83491767\_83496846\_- | Tiprl | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr14\_14574448\_14578139\_- | Fras1 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr14\_15091390\_15121067\_+ | Cnot6l | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr14\_44962178\_45002727\_- | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr14\_86434307\_86438230\_+ | Ogdh | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr16\_80662286\_80662714\_+ | Erich1 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr17\_79740146\_79789485\_- | Fam188a | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr17\_83567831\_83575483\_+ | Plxdc2 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr17\_90598577\_90598956\_- | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr18\_13352206\_13369652\_+ | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr2\_100696652\_100710426\_+ | Ythdf3 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr2\_189723524\_189726207\_+ | Gatad2b | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr3\_13277411\_13288615\_- | Pbx3 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr3\_21859562\_21904269\_- | Strbp | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr4\_147527096\_147528435\_+ | Mkrn2 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr4\_2521570\_2527608\_+ | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr4\_25978673\_26192504\_+ | Cdk14 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr5\_107939444\_107944269\_+ | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr5\_4404517\_4425481\_+ | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr5\_72119820\_72137041\_+ | Rad23b | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr6\_43306391\_43309313\_+ | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr7\_2563911\_2567090\_- | Rbms2 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr7\_30413737\_30426040\_+ | Uhrf1bp1l | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr8\_55395660\_55402713\_- | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr9\_111200425\_111213103\_- | Gin1 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr9\_119694338\_119706127\_- | not\_annotated | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr9\_44865856\_44871773\_- | Aff3 | -6.6757 | 0.0488 | 0.3457 | 0.5105 | 0.0225 |
| chr1\_177651557\_177654228\_+ | Tead1 | -6.8315 | 0.0005 | 0.1237 | 3.4035 | 0.1577 |
| chr15\_3465242\_3485434\_- | Vcl | -6.9552 | 0.0100 | 0.1237 | 1.0211 | 0.0451 |
| chr16\_46262257\_46424149\_+ | Tenm3 | -6.9552 | 0.0100 | 0.1237 | 1.0211 | 0.0451 |
| chr18\_28026848\_28028197\_+ | Ctnna1 | -6.9552 | 0.0100 | 0.1237 | 1.0211 | 0.0451 |
| chr8\_127935694\_127936912\_- | Oxsr1 | -7.4794 | 0.0038 | 0.1237 | 1.3614 | 0.0563 |
| chr18\_13336354\_13404495\_+ | not\_annotated | -7.6139 | 0.0125 | 0.1459 | 0.8509 | 0.0338 |
| chr3\_44459185\_44464960\_- | Acvr1 | -7.6139 | 0.0125 | 0.1459 | 0.8509 | 0.0338 |
| chr4\_155716221\_155718729\_+ | Necap1 | -7.6139 | 0.0125 | 0.1459 | 0.8509 | 0.0338 |
| chr5\_166185423\_166191317\_- | Ube4b | -7.6139 | 0.0125 | 0.1459 | 0.8509 | 0.0338 |
| chr5\_4408215\_4469629\_+ | not\_annotated | -7.6139 | 0.0125 | 0.1459 | 0.8509 | 0.0338 |
| chr19\_29642344\_29671928\_- | Inpp4b | -7.6956 | 0.0008 | 0.1237 | 2.2123 | 0.0901 |
| chr1\_90024085\_90025377\_- | not\_annotated | -8.4094 | 0.0018 | 0.1237 | 1.5316 | 0.0563 |
| chr8\_87100666\_87102375\_- | not\_annotated | -8.4094 | 0.0018 | 0.1237 | 1.5316 | 0.0563 |
| chr1\_154405931\_154411147\_+ | Picalm | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr10\_18218676\_18238682\_- | Ranbp17 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr17\_83567831\_83589045\_+ | Plxdc2 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr17\_9875749\_9929565\_- | Nsd1 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr2\_80738889\_80741520\_- | not\_annotated | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr3\_11325952\_11328601\_+ | Golga2 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr4\_155661796\_155662142\_+ | Foxj2 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr6\_136059672\_136107031\_+ | Mark3 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr7\_25075293\_25093708\_+ | Nuak1 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr7\_3268770\_3275183\_+ | Sarnp | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr9\_119805160\_119807029\_- | not\_annotated | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr9\_37117758\_37117919\_- | Phf3 | -8.8696 | 0.0155 | 0.1747 | 0.6807 | 0.0225 |
| chr13\_73255237\_73265813\_+ | Acbd6 | -9.1238 | 0.0047 | 0.1237 | 1.0211 | 0.0338 |
| chr5\_74649971\_74727622\_+ | Palm2 | -9.1238 | 0.0047 | 0.1237 | 1.0211 | 0.0338 |
| chr6\_129864989\_129871224\_+ | Vrk1 | -9.1238 | 0.0047 | 0.1237 | 1.0211 | 0.0338 |
| chr1\_127569589\_127570194\_- | Asb7 | -11.0635 | 0.0051 | 0.1237 | 0.8509 | 0.0225 |
| chr19\_22177001\_22179584\_- | Phkb | -11.0635 | 0.0051 | 0.1237 | 0.8509 | 0.0225 |
| chr19\_29691444\_29744346\_- | Inpp4b | -11.0635 | 0.0051 | 0.1237 | 0.8509 | 0.0225 |
| chr20\_32387177\_32387362\_- | Ccar1 | -11.0635 | 0.0051 | 0.1237 | 0.8509 | 0.0225 |
| chr1\_20022792\_20081200\_+ | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr1\_255501514\_255505999\_+ | Tnks2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr1\_257393465\_257394830\_+ | Plce1 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr1\_259434763\_259450845\_- | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr1\_265247181\_265254011\_+ | Btrc | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr1\_47949965\_47952986\_+ | Wtap | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr10\_39952995\_39991584\_+ | Rapgef6 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr11\_82646627\_82651452\_- | Senp2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr12\_25579895\_25583744\_+ | Wbscr16 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr13\_44866844\_44868833\_+ | R3hdm1 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr15\_10416533\_10423574\_- | Ngly1 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr18\_13415628\_13417002\_+ | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr19\_12906306\_12906793\_- | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr19\_16914612\_16996896\_- | Fto | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr19\_25252699\_25254224\_- | Cc2d1a | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr2\_200221473\_200253557\_+ | Notch2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr20\_28572245\_28572520\_+ | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr20\_44521278\_44522731\_+ | Fyn | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr20\_5090501\_5090805\_+ | Abhd16a | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr3\_136874645\_136896550\_- | Kif16b | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr3\_148357102\_148363023\_+ | Tpx2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr3\_152294624\_152324968\_+ | Phf20 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr3\_94736244\_94745177\_- | Qser1 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr4\_147458828\_147471754\_+ | Tsen2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr4\_180610928\_180613165\_- | Itpr2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr4\_57560121\_57565270\_- | Ube2h | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr5\_155691489\_155709264\_- | Cdc42 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr5\_93024446\_93058793\_- | not\_annotated | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr6\_105395367\_105398311\_+ | Ttc9 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr6\_122607272\_122614034\_+ | Spata7 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr6\_6627343\_6668794\_+ | Eml4 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr7\_117659937\_117660619\_+ | Adck5 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr7\_123685068\_123715127\_- | Tcf20 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr7\_140840577\_140845680\_+ | Spats2 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr9\_25415538\_25420743\_+ | Tfap2b | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr9\_81273370\_81281375\_- | Tns1 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chrX\_43575307\_43585138\_- | Acot9 | -12.2055 | 0.0180 | 0.1851 | 0.5105 | 0.0113 |
| chr7\_142854832\_142858134\_+ | Acvr1b | -13.2574 | 0.0018 | 0.1237 | 1.0211 | 0.0225 |
| chr8\_58182482\_58182849\_- | Acat1 | -13.2574 | 0.0018 | 0.1237 | 1.0211 | 0.0225 |
| chr1\_209792071\_209792497\_+ | Glrx3 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr1\_226673750\_226674716\_+ | Ddb1 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr10\_48659695\_48672469\_- | Ncor1 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr14\_9347790\_9358699\_+ | Wdfy3 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr18\_13336354\_13428569\_+ | not\_annotated | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr2\_189383959\_189395748\_- | Atp8b2 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr2\_61054405\_61137026\_+ | Adamts12 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr5\_144374584\_144384746\_- | Ago3 | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr6\_28272106\_28272697\_+ | Dnmt3a | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chrX\_156468826\_156468867\_+ | Flna | -16.2168 | 0.0049 | 0.1237 | 0.6807 | 0.0113 |
| chr5\_155850980\_155851664\_+ | not\_annotated | -20.228 | 0.0014 | 0.1237 | 0.8509 | 0.0113 |
| chr18\_65456672\_65460654\_+ | Tcf4 | -24.2393 | 0.0004 | 0.1237 | 1.0211 | 0.0113 |
| chr1\_125135342\_125138315\_+ | Mtmr10 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_140140165\_140141583\_- | Ntrk3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_142533729\_142542201\_- | Iqgap1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_142562934\_142565170\_- | Iqgap1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_144634000\_144636842\_+ | Eftud1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_154439745\_154442136\_+ | Picalm | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_162451867\_162458782\_+ | Ints4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_164561999\_164565992\_+ | Arrb1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_177569617\_177654228\_+ | Tead1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_185263914\_185270375\_+ | Pik3c2a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_185289449\_185294611\_+ | Pik3c2a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_185559928\_185563549\_- | RGD1311703 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_191932207\_191945144\_- | Cog7 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_197067160\_197069686\_- | Gtf3c1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_201544705\_201548146\_+ | Htra1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_206151058\_206177343\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_214562895\_214581689\_+ | Ap2a2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_21561046\_21572359\_- | Med23 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_218832599\_218844420\_- | Lrp5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_219600351\_219638528\_- | Kdm2a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_221743003\_221746017\_+ | Sf1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_242626963\_242631822\_- | Pgm5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_250573135\_250583564\_- | Asah2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_250855392\_250919167\_- | Sgms1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_253264936\_253275400\_+ | Kif20b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_276486933\_276487677\_+ | Vti1a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_277755154\_277768170\_- | Afap1l2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_282155276\_282162201\_- | Eif3a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_282190810\_282202180\_+ | Fam45a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_40900573\_40900794\_+ | Akap12 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_48220382\_48221758\_+ | Igf2r | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_6575079\_6601608\_- | Utrn | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_72302573\_72308741\_- | Epn1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_80502661\_80502800\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_84652633\_84654219\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_90024085\_90032101\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_90118871\_90120765\_- | RGD1308428 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_90207974\_90215839\_- | Lsm14a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_104125297\_104125709\_+ | Nup85 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_105748039\_105771765\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_110072090\_110073053\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_14560970\_14572429\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_20634871\_20650957\_- | Rars | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_35807360\_35809197\_- | Canx | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_37167400\_37185721\_- | Sec24a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_37240828\_37243464\_+ | Sar1b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_38894115\_38894558\_+ | 8-Sep | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_39916622\_39923049\_+ | Rapgef6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_46193279\_46194858\_- | Cops3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_55579627\_55579967\_- | Pfas | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_583446\_593608\_- | Abcc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_62231971\_62237402\_+ | Smyd4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_63840631\_63840996\_+ | Crk | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_65002090\_65026738\_- | Myo18a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_65019412\_65026738\_- | Myo18a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_67450815\_67462581\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_74277341\_74277654\_- | Ypel2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_76253876\_76261188\_- | Scpep1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_82378184\_82378735\_+ | Mrpl27 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_83856659\_83863639\_+ | Snf8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_85662848\_85672493\_- | Pip4k2b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_88861805\_88863322\_- | Ptrf | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_88930821\_88959848\_+ | Atp6v0a1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_89658158\_89663185\_+ | Dhx8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_91018016\_91018199\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_91742806\_91748081\_- | Gosr2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_93439729\_93441515\_+ | Tlk2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_93878070\_93921257\_+ | Tanc2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr10\_96811460\_96814359\_+ | Cep112 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_30008226\_30061172\_- | Tiam1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_34631080\_34738852\_+ | Ttc3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_45487965\_45498625\_- | Tomm70a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_65083706\_65208765\_- | Gsk3b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_71037756\_71047468\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_72848908\_72854598\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_84339457\_84350242\_- | Yeats2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_86730684\_86731950\_+ | Comt | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_87896642\_87902134\_+ | Pi4ka | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr11\_89253753\_89254600\_- | Spidr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_10499000\_10534685\_- | Cdk8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_11500477\_11509060\_+ | Smurf1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_13717975\_13718379\_+ | Actb | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_13719085\_13719388\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_1686544\_1703259\_- | Insr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_36738269\_36745269\_+ | Scarb1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_38582195\_38583083\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_40287566\_40294628\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_47286246\_47286938\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr12\_9229552\_9238470\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_101730680\_101732557\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_109624047\_109624906\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_26796944\_26807859\_- | Kdsr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_35695199\_35713684\_- | Ptpn4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_35728572\_35736524\_- | Ptpn4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_45094555\_45099733\_- | Dars | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_51156213\_51166706\_- | Ppfia4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_55515759\_55532981\_- | Nek7 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_68806567\_68815040\_+ | Trmt1l | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_70269829\_70271133\_- | Smg7 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_70674465\_70674983\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_70698871\_70703404\_- | Lamc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_72965791\_72969502\_- | Xpr1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_73239822\_73255342\_+ | Acbd6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_74861060\_74875355\_- | Rasal2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_83579111\_83588797\_- | Dcaf6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_83606922\_83660292\_- | Dcaf6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_95128660\_95230772\_- | Akt3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr13\_95230647\_95234977\_- | Akt3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_108241139\_108251386\_+ | Usp34 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_108491381\_108501925\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_19439807\_19440412\_+ | Cox18 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_20662363\_20662701\_- | Slc4a4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_2138237\_2145090\_+ | Gak | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_44221926\_44239819\_+ | Pds5a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_44675095\_44681076\_+ | Rfc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_60474456\_60488159\_- | Anapc4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_66883602\_66886417\_- | Slit2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_71933119\_71959067\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_83464422\_83464695\_- | Drg1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_84450104\_84450744\_+ | Gatsl3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr14\_85584909\_85586061\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_102403978\_102404136\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_16170084\_16224620\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_18573054\_18594643\_- | Pxk | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_19808241\_19808798\_- | Fermt2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_24048554\_24052488\_- | Wdhd1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_33558468\_33558619\_+ | Pabpn1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_37157448\_37225781\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_41254629\_41315828\_- | Tnfrsf19 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr15\_42981487\_42982243\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_10776618\_10789158\_- | Bmpr1a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_19390228\_19392993\_- | Tpm4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_20646666\_20651346\_- | Fkbp8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_20776310\_20780815\_+ | Crtc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_2102749\_2128403\_- | Slmap | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_21102344\_21102837\_- | Sugp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_46756476\_46781431\_+ | Tenm3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_50390276\_50390935\_- | Fat1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_54054981\_54061335\_- | Pcm1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_54075609\_54083293\_- | Pcm1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_54478109\_54479512\_- | Slc7a2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_62222412\_62226896\_- | Gsr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_62523581\_62538612\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_6675481\_6675744\_- | Prkcd | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_6805605\_6806323\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_71239986\_71240406\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_74726583\_74730359\_- | Vps36 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_74726833\_74726982\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr16\_79762493\_79763707\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_1766090\_1770085\_- | Cdc14b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_20187546\_20363753\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_36120094\_36121325\_- | Mboat1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_36398788\_36404796\_+ | E2f3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_52515729\_52555114\_- | Gli3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_63700912\_63716786\_+ | Dip2c | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_6794838\_6802277\_+ | Gkap1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_6970718\_7017383\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_70266399\_70271973\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_79759287\_79789485\_- | Fam188a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_80451492\_80454996\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_82030023\_82049208\_- | Nsun6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr17\_83222662\_83375581\_+ | Plxdc2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_13324086\_13404495\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_1344261\_1346489\_- | Rock1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_14608935\_14643454\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_24464585\_24478015\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_27601040\_27614705\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_28595005\_28597803\_+ | Ube2d2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_28602652\_28603005\_+ | Ube2d2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_37745348\_37748032\_- | Dpysl3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_49891333\_49906496\_- | Zfp608 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_58390344\_58395177\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_63828377\_63844188\_+ | Ldlrad4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_75127208\_75263369\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_81267544\_81289889\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr18\_81424260\_81428974\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_12795296\_12796904\_- | Large | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_17424613\_17440665\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_29642344\_29691609\_- | Inpp4b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_32778231\_32781498\_+ | Lsm6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_55312024\_55312742\_- | Piezo1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_56064264\_56064931\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_5933542\_5934014\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_59340980\_59347163\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_61052581\_61054289\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr19\_820019\_821572\_+ | Cmtm4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_107346868\_107347207\_+ | Tbl1xr1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_123682936\_123696686\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_128599095\_128636580\_- | Sclt1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_144849839\_144866101\_+ | Dclk1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_172320126\_172322184\_- | Schip1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_178272370\_178282786\_- | Fnip2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_18525795\_18531203\_- | Vcan | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_187525298\_187529234\_+ | Mef2d | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_189354110\_189395748\_- | Atp8b2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_189361951\_189364938\_- | Atp8b2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_189387511\_189395748\_- | Atp8b2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_189998553\_189999522\_+ | S100a4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_198933682\_198940577\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_204030458\_204030814\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_204030463\_204030819\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_204581807\_204583467\_- | Vangl1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_205828549\_205831804\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_206231481\_206238923\_- | Hipk1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_207119352\_207127766\_+ | Slc16a1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_216483231\_216484405\_- | Rnpc3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_22038220\_22039401\_- | Fam151b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_22093619\_22096951\_- | Zfyve16 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_232001887\_232003640\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_238237568\_238246933\_- | Gstcd | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_238245237\_238246933\_- | Gstcd | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_238557671\_238566933\_+ | Ppa2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_240433404\_240441148\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_247824863\_247883656\_- | Pdlim5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_250500409\_250507328\_- | Hs2st1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_251316582\_251345298\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_27991009\_27999833\_- | Hexb | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_33950934\_33952806\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_56120536\_56133931\_- | Osmr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_57520890\_57527096\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_61887108\_61887426\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_61889126\_61949945\_- | Npr3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_63101178\_63101253\_- | Cdh6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_77985145\_78005821\_+ | Myo10 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_80226167\_80256271\_+ | Ankh | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_80738848\_80741520\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr2\_88290523\_88297769\_- | Car13 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr20\_19381829\_19383486\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr20\_26781151\_26787536\_+ | Herc4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr20\_27258144\_27261146\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr20\_38969641\_38979343\_- | Serinc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr20\_50676394\_50699734\_+ | Hace1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_109863809\_109864225\_+ | Thbs1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_110068534\_110079077\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_110880970\_110887104\_+ | Casc5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_111713473\_111732677\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_111885170\_111892291\_- | Ehd4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_117379828\_117381476\_- | Myef2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_120328719\_120332619\_- | Nphp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_120363064\_120366014\_- | Nphp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_123249654\_123250752\_- | RGD1565616 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_13389506\_13401195\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_148158808\_148167183\_+ | Hm13 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_148357102\_148359588\_+ | Tpx2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_150005719\_150031135\_+ | Cbfa2t2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_150031067\_150033957\_+ | Cbfa2t2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_150919838\_150932187\_- | Ncoa6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_154255774\_154285072\_+ | Ctnnbl1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_161224653\_161232999\_+ | Dnttip1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_163594007\_163595055\_+ | Arfgef2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_176189688\_176196406\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_177108718\_177113017\_+ | Prpf6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_2008341\_2037677\_- | Ehmt1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_22083652\_22120064\_- | Dennd1a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_33044198\_33065432\_- | Orc4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_33044198\_33069332\_- | Orc4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_57069326\_57389901\_- | Tlk1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_58041790\_58067040\_+ | Hat1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_62491323\_62491541\_+ | Hnrnpa3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_63615004\_63624328\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_63975563\_63983972\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_67740054\_67742667\_- | Nckap1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_71149432\_71195406\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_71261722\_71262783\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_7439642\_7475230\_+ | Ddx31 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_80383472\_80395207\_+ | Lrp4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_81127393\_81140962\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_82575880\_82586330\_+ | Alx4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_82582871\_82586330\_+ | Alx4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_83005789\_83008399\_- | Hsd17b12 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr3\_8887380\_8892631\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_115172805\_115191480\_- | Dguok | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_116566473\_116573029\_- | Exoc6b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_118655073\_118655210\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_119853548\_119863889\_+ | Hmces | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_122781720\_122783563\_+ | Hdac11 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_124288316\_124298466\_- | Prickle2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_133858082\_133912590\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_133909050\_133909588\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_140449475\_140470253\_+ | Itpr1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_152270524\_152282197\_- | Erc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_168920537\_168922845\_- | Hebp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_176059640\_176063299\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_181939150\_181942755\_+ | Ccdc91 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_182666925\_182826795\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_183340726\_183344295\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_22262466\_22280995\_- | Abcb1b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_27680559\_27680818\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_31566712\_31568774\_+ | Col1a2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_38290555\_38379458\_+ | Phf14 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_56849264\_56861681\_- | Tnpo3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_57034673\_57036782\_+ | Smo | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_57387152\_57391559\_+ | Nrf1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_57745693\_57766558\_+ | Klhdc10 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_66193731\_66196285\_+ | Ubn2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_67399951\_67407458\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_87017858\_87018775\_- | Lsm5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_89221788\_89238445\_- | Fam13a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr4\_95933283\_95940085\_+ | Smarcad1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_122580014\_122627055\_- | Wdr78 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_128959422\_129007397\_+ | Eps15 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_135007881\_135009794\_+ | Pomgnt1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_135447272\_135471564\_- | Nasp | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_136420692\_136510629\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_140543793\_140545728\_+ | Ppt1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_144459588\_144465999\_- | Ago1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_144924321\_144942704\_- | Zmym4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_148844953\_148845254\_+ | Pum1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_151016809\_151026871\_- | Ppp1r8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_154489598\_154489939\_+ | Id3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_157894140\_157899560\_+ | Ubr4 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_159643630\_159645469\_- | Szrd1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_164420987\_164497312\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_166001130\_166042679\_- | Kif1b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_172949060\_172957859\_+ | Gnb1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_24452754\_24460363\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_28420098\_28430782\_+ | Tmem55a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_4469540\_4503266\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_60601995\_60617166\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_63949359\_63986963\_- | Erp44 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_74285881\_74286245\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_8794167\_8824029\_- | Cspp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_93009057\_93032294\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr5\_93024446\_93055082\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_104862169\_104864961\_+ | Smoc1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_106068325\_106097188\_+ | Sipa1l1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_108511842\_108524653\_- | Ltbp2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_109744191\_109778854\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_109764831\_109800905\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_119791159\_119833674\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_12314641\_12323001\_+ | Ppp1r21 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_124340622\_124400951\_- | Ttc7b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_129621583\_129643821\_+ | Papola | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_129627825\_129636485\_+ | Papola | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_135513651\_135533476\_+ | Rcor1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_18880730\_18884895\_+ | Alkbh8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_18884764\_18900610\_+ | Alkbh8 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_24394242\_24459158\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_25838289\_25892157\_- | Bre | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_33845664\_33845900\_+ | Pum2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_41809177\_41830656\_- | Lpin1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_4298605\_4312324\_- | Slc8a1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_43254770\_43300980\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_60133233\_60142692\_- | Ifrd1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_76425366\_76427075\_- | Ralgapa1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_76500538\_76502628\_- | Ralgapa1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_76580256\_76593494\_- | Ralgapa1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_7995166\_8045059\_- | Lrpprc | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_8332013\_8344901\_- | Prepl | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_86792193\_86806641\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_9294518\_9300870\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr6\_93582267\_93588133\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_109055032\_109057918\_- | Zfat | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_132922505\_132925950\_+ | Lrrk2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_138090221\_138090504\_- | Slc38a2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_141061863\_141066723\_+ | Tmbim6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_141727863\_141790342\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_25074370\_25075413\_+ | Nuak1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_30410399\_30418434\_+ | Uhrf1bp1l | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_60391033\_60408823\_- | Cpsf6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_70580258\_70584215\_+ | Ddit3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_70753100\_70753299\_+ | R3hdm2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_70878208\_70879165\_- | Lrp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_73697828\_73792160\_- | Stk3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_94726954\_94737545\_- | Taf2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr7\_98792746\_98797649\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_102350320\_102351960\_+ | Slc9a9 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_112752119\_112772572\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_116512146\_116517254\_- | Rbm5 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_117391270\_117392964\_- | Arih2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_117398256\_117402142\_- | Arih2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_122153878\_122176014\_+ | Clasp2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_122210001\_122216434\_+ | Ubp1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_22373420\_22374897\_+ | Slc44a2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_26267388\_26271172\_- | Herpud2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_33277813\_33279218\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_33859473\_33859733\_+ | Ets1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_40114846\_40120265\_- | Tbrg1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_50264432\_50274326\_- | Pafah1b2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_56585336\_56592870\_+ | Rdx | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_56590638\_56594983\_+ | Rdx | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_59724257\_59740775\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_61133739\_61141248\_+ | Hmg20a | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_64183983\_64186247\_- | Arih1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_69091917\_69099536\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_70318276\_70333132\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_75077445\_75078242\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_77040307\_77055209\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_79096950\_79105913\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_85078543\_85090192\_+ | Gclc | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_87503726\_87531662\_+ | Senp6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_87521066\_87542313\_+ | Senp6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr8\_87537537\_87550389\_+ | Senp6 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_100576696\_100588953\_- | Hdlbp | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_110795169\_110798453\_- | Fbxl17 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_112000529\_112008383\_- | Pja2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_114989920\_115018287\_- | Ptprm | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_116094503\_116118654\_- | Arhgap28 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_17200141\_17203556\_- | Gtpbp2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_18439343\_18441083\_- | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_20768097\_20839897\_+ | Cd2ap | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_20826561\_20856145\_+ | Cd2ap | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_28488673\_28558845\_- | Rims1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_54258373\_54258451\_+ | Gls | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_61674828\_61675318\_+ | Coq10b | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_65301745\_65302114\_- | Clk1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_67134925\_67172784\_+ | Cyp20a1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_67298703\_67341341\_- | Raph1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_67325453\_67341341\_- | Raph1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_68628269\_68642875\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_71926164\_71927987\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_78912689\_78929113\_- | Fn1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_78934205\_78939729\_- | Fn1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_78934208\_78939732\_- | Fn1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_79609560\_79622587\_- | Pecr | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_81527521\_81537291\_+ | Arpc2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_86056178\_86069833\_- | Cul3 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_88647464\_88653711\_+ | Agfg1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_92644773\_92658017\_+ | Sp140 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr9\_94504713\_94508837\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_105506920\_105507264\_+ | not\_annotated | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_10582169\_10613048\_- | Usp9x | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_124742590\_124743712\_- | Lamp2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_2069758\_2105553\_- | Rp2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_40522011\_40553013\_+ | Phex | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_45715724\_45732525\_- | Prrg1 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_64889320\_64893923\_- | Zc4h2 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_65288199\_65293237\_+ | Msn | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chrX\_74464424\_74476516\_- | RGD1564124 | -47.7396 | 0.0103 | 0.1237 | 0.3404 | 0.0000 |
| chr1\_219398595\_219399238\_+ | Coro1b | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr1\_265682535\_265698923\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr10\_14266619\_14271341\_- | Mapk8ip3 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr10\_35875615\_35876146\_+ | Hnrnph1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr10\_40751167\_40751896\_- | Sparc | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr12\_6448960\_6452158\_+ | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr12\_9086408\_9090699\_+ | Flt1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr14\_106994181\_107022586\_- | Ehbp1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr14\_2595787\_2597731\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr14\_44293703\_44323368\_- | Ube2k | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr14\_59708839\_59709880\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr15\_28631170\_28639464\_- | Chd8 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr16\_2289439\_2298816\_+ | Dennd6a | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr17\_83375370\_83539887\_+ | Plxdc2 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr18\_3483762\_3510293\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr18\_71698542\_71829886\_- | Ctif | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr19\_17493068\_17494680\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr19\_815939\_821572\_+ | Cmtm4 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr2\_152807002\_152807924\_- | Dhx36 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr2\_197959397\_197967061\_- | Prpf3 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr2\_27322285\_27333634\_- | Polk | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr2\_5335393\_5418063\_+ | Fam172a | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr20\_28106582\_28107526\_+ | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr3\_138050122\_138051043\_+ | Dstn | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr3\_33053496\_33068624\_- | Orc4 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr4\_148230154\_148258399\_+ | Zfand4 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr5\_107733214\_107733570\_+ | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr5\_152968943\_152978059\_- | Ldlrap1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr5\_155946582\_155956607\_+ | Usp48 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr5\_19296052\_19315576\_+ | Ubxn2b | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr6\_104844490\_104846483\_+ | Smoc1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr6\_22266492\_22270060\_- | Spast | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr6\_22362488\_22390548\_+ | Memo1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr6\_9353460\_9361359\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr7\_114487838\_114529869\_- | Ptk2 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr7\_76852288\_76853840\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr8\_22794901\_22800798\_- | Kank2 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr8\_23302985\_23308859\_- | not\_annotated | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr9\_11187797\_11194343\_- | Uxs1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr9\_113918918\_113928459\_+ | Wash1 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr9\_63495768\_63534661\_- | Satb2 | -71.1094 | 0.0020 | 0.1237 | 0.5105 | 0.0000 |
| chr1\_273714858\_273721737\_- | Xpnpep1 | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr10\_104600759\_104602665\_+ | not\_annotated | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr10\_61979597\_61983730\_+ | Smg6 | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr10\_84725219\_84727543\_+ | Copz2 | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr12\_25442325\_25455819\_+ | Gtf2i | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr3\_81269794\_81270191\_+ | not\_annotated | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr6\_22389165\_22407626\_+ | Memo1 | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr7\_31742496\_31750455\_- | Apaf1 | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr8\_62306190\_62307577\_+ | Cox5a | -94.4792 | 0.0004 | 0.1237 | 0.6807 | 0.0000 |
| chr10\_18326421\_18402658\_- | Ranbp17 | -117.8491 | 0.0001 | 0.1088 | 0.8509 | 0.0000 |
| chr10\_95396660\_95398698\_- | not\_annotated | -117.8491 | 0.0001 | 0.1088 | 0.8509 | 0.0000 |
| chr2\_189391378\_189392862\_- | Atp8b2 | -117.8491 | 0.0001 | 0.1088 | 0.8509 | 0.0000 |
| chr3\_154526134\_154533322\_- | not\_annotated | -117.8491 | 0.0001 | 0.1088 | 0.8509 | 0.0000 |
| chr7\_70790920\_70792642\_+ | R3hdm2 | -117.8491 | 0.0001 | 0.1088 | 0.8509 | 0.0000 |
| chr1\_154405931\_154406882\_+ | Picalm | -141.2189 | 0.0000 | 0.1067 | 1.0211 | 0.0000 |
| chr6\_72429638\_72430205\_- | Strn3 | -141.2189 | 0.0000 | 0.1067 | 1.0211 | 0.0000 |