**Supplemental Table 4. Eighty-nine differentially expressed circular RNAs (circRNAs; OA menisci with versus without IL-1β treatment. < 1, FDR < 0.05)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CircbaseID** | **GeneName** | **log2FC** | **FoldChange** | **FDR** | **Style** |
|  | MMP1 | 12.90981466 | 7695.581672 | 0 | up |
| hsa\_circ\_0094044|chr10:70719561-70721913+|ENST00000354185.4|DDX21 | DDX21 | 5.926404705 | 60.81708253 | 5.28806E-07 | up |
| hsa\_circ\_0002686|chr4:40936472-40947090-|NM\_004307|APBB2 | APBB2 | 4.729775141 | 26.53408953 | 0.038945836 | up |
| hsa\_circ\_0007221|chr10:75331178-75336119-|NM\_152586|USP54 | USP54 | 4.387929873 | 20.93623144 | 0.009647879 | up |
|  | OGDH | 4.325700071 | 20.05235911 | 0.039682222 | up |
| hsa\_circ\_0005221|chr17:79563141-79575848-|NM\_017921|NPLOC4 | NPLOC4 | 4.282670417 | 19.46311089 | 0.002243661 | up |
| hsa\_circ\_0005890|chr9:4191785-4286523-|NM\_001042413|GLIS3 | GLIS3 | 4.256239189 | 19.109779 | 7.84125E-06 | up |
|  | HERC4 | 4.058070111 | 16.65715503 | 0.000717641 | up |
| hsa\_circ\_0005937|chr7:111575594-111585853-|NM\_014705|DOCK4 | DOCK4 | 4.005631692 | 16.06257952 | 0.011932401 | up |
| hsa\_circ\_0006768|chr6:87925620-87955362+|NM\_015021|ZNF292 | ZNF292 | 3.993458944 | 15.92762157 | 0.046815353 | up |
| hsa\_circ\_0008917|chr9:125719289-125752492+|NM\_012197|RABGAP1 | RABGAP1 | 3.909709887 | 15.02934142 | 0.032024403 | up |
| hsa\_circ\_0007208|chr3:73004248-73016870+|NM\_001080393|GXYLT2 | GXYLT2 | 3.865536891 | 14.57614075 | 0.00058542 | up |
| hsa\_circ\_0003251|chr12:1003727-1006847+|NM\_001184985|WNK1 | WNK1 | 3.6432936 | 12.49512648 | 0.0008458 | up |
| hsa\_circ\_0007037|chr9:88918000-88919862-|NM\_024617|ZCCHC6 | ZCCHC6 | 3.6432936 | 12.49512648 | 0.000848505 | up |
| hsa\_circ\_0002482|chr9:103082546-103084053-|NM\_017746|TEX10 | TEX10 | 3.608553641 | 12.19783872 | 0.034501903 | up |
| hsa\_circ\_0008602|chr11:106849344-106856857-|NM\_000855|GUCY1A2 | GUCY1A2 | 3.536285696 | 11.60187195 | 0.043831223 | up |
| hsa\_circ\_0008581|chr13:52971366-52976816-|NM\_018676|THSD1 | THSD1 | 3.469549255 | 11.07741426 | 0.021494969 | up |
|  | MTHFD2L | 3.446453037 | 10.90148704 | 0.001656272 | up |
| hsa\_circ\_0012397|chr1:51001040-51061888-|NM\_007051|FAF1 | FAF1 | 3.425023471 | 10.74075476 | 0.006386661 | up |
| hsa\_circ\_0002843|chr1:217783662-217787544-|NM\_018040|GPATCH2 | GPATCH2 | 3.211372078 | 9.26231022 | 0.011193487 | up |
|  | ACAP2 | 2.991793078 | 7.954620357 | 0.000347047 | up |
| hsa\_circ\_0045202|chr17:61655830-61657304+|NM\_005828|DCAF7 | DCAF7 | 2.988279822 | 7.935272803 | 0.000956071 | up |
| hsa\_circ\_0006380|chr15:57523349-57526305+|NM\_207037|TCF12 | TCF12 | 2.987125903 | 7.928928429 | 0.009379615 | up |
| hsa\_circ\_0088829|chr9:131329016-131331176+|NM\_001130438|SPTAN1 | SPTAN1 | 2.971549266 | 7.843781056 | 0.000360707 | up |
| hsa\_circ\_0133991|chr7:24663281-24681487+|ENST00000396475.2|MPP6 | MPP6 | 2.93724939 | 7.659495603 | 0.013131012 | up |
| hsa\_circ\_0001487|chr5:58284319-58289292-|NM\_001104631|PDE4D | PDE4D | 2.842819745 | 7.174208853 | 3.04373E-06 | up |
|  | na | 2.827247271 | 7.097186759 | 0.006198659 | up |
| hsa\_circ\_0007606|chr4:146791396-146813567-|NM\_178835|ZNF827 | ZNF827 | 2.752088118 | 6.736915096 | 0.002501859 | up |
| hsa\_circ\_0075157|chr5:176618884-176631293+|NM\_022455|NSD1 | NSD1 | 2.749296039 | 6.72388961 | 0.047531686 | up |
| hsa\_circ\_0069227|chr4:15626874-15646331-|NR\_036464|FBXL5 | FBXL5 | 2.402439206 | 5.286962913 | 0.02554076 | up |
| hsa\_circ\_0002622|chr3:169854206-169896726-|NM\_024947|PHC3 | PHC3 | 2.259567431 | 4.788478853 | 0.018203578 | up |
| hsa\_circ\_0006750|chr10:96234424-96260084+|NM\_015188|TBC1D12 | TBC1D12 | 2.22841995 | 4.686204621 | 0.000878892 | up |
| hsa\_circ\_0007933|chrX:10534927-10535643-|NM\_000381|MID1 | MID1 | 2.225680919 | 4.677316059 | 0.03990265 | up |
| hsa\_circ\_0076560|chr6:43514307-43516197-|NM\_020750|XPO5 | XPO5 | 2.207623516 | 4.619137575 | 0.020388325 | up |
| hsa\_circ\_0002198|chr6:136472297-136476896+|NM\_018945|PDE7B | PDE7B | 2.138745425 | 4.40378924 | 0.002287208 | up |
| hsa\_circ\_0004662|chr6:160103505-160109274-|NM\_001024465|SOD2 | SOD2 | 2.091670248 | 4.262412588 | 1.1018E-07 | up |
| hsa\_circ\_0001358|chr3:169694733-169706147+|NM\_003262|SEC62 | SEC62 | 2.079428136 | 4.226396547 | 5.85745E-10 | up |
| hsa\_circ\_0005505|chr12:66597490-66622150+|NM\_007199|IRAK3 | IRAK3 | 2.069053227 | 4.19611212 | 0.00493004 | up |
| hsa\_circ\_0003315|chr16:74493579-74497377-|NR\_027264|GLG1 | GLG1 | 2.068646987 | 4.194930727 | 0.038399111 | up |
|  | MEDAG | 2.035381209 | 4.099310327 | 0.002126552 | up |
| hsa\_circ\_0005309|chr14:105718843-105739231-|NM\_001519|BRF1 | BRF1 | 2.009913444 | 4.027580554 | 0.008554898 | up |
| hsa\_circ\_0111334|chr1:179087721-179091002-|NM\_007314|ABL2 | ABL2 | 1.993430897 | 3.981827983 | 2.26986E-05 | up |
| hsa\_circ\_0001833|chr8:145245686-145255444+|NM\_001099281|HEATR7A | MROH1 | 1.988495642 | 3.968229985 | 0.044371757 | up |
| hsa\_circ\_0000660|chr15:94899365-94945248+|NM\_001159643|MCTP2 | MCTP2 | 1.948316499 | 3.859239287 | 0.000213516 | up |
|  | PHF20 | 1.943794974 | 3.847163046 | 0.00586886 | up |
|  | TTC7A | 1.862764154 | 3.637038391 | 2.79036E-06 | up |
| hsa\_circ\_0003232|chr16:53907697-53913899+|NM\_001080432|FTO | FTO | 1.846270374 | 3.595694308 | 0.024452132 | up |
| hsa\_circ\_0002166|chr1:22074630-22078108-|NM\_032236|USP48 | USP48 | 1.745277884 | 3.352594234 | 2.9365E-06 | up |
| hsa\_circ\_0001971|chr7:23015828-23023664-|NM\_032581|FAM126A | FAM126A | 1.705705021 | 3.261882967 | 0.004376446 | up |
| hsa\_circ\_0003893|chr15:81229014-81230320+|NM\_018689|KIAA1199 | CEMIP | 1.572942148 | 2.975108221 | 0.007081542 | up |
| hsa\_circ\_0003692|chr3:171969049-172028671+|NM\_022763|FNDC3B | FNDC3B | 1.556685664 | 2.941772465 | 0.028517837 | up |
| hsa\_circ\_0000053|chr1:36826821-36828257-|NM\_032017|STK40 | STK40 | 1.551770327 | 2.931766747 | 9.44528E-05 | up |
| hsa\_circ\_0008618|chr4:151719232-151738409-|NM\_001199282|LRBA | LRBA | 1.487654872 | 2.804327558 | 0.041442137 | up |
| hsa\_circ\_0024085|chr11:95825055-95826681-|NM\_032427|MAML2 | MAML2 | 1.405602224 | 2.64928348 | 7.98632E-06 | up |
| hsa\_circ\_0005942|chr18:42281139-42283072+|NM\_015559|SETBP1 | SETBP1 | 1.137068586 | 2.199336854 | 0.042469461 | up |
| hsa\_circ\_0000467|chr13:21742126-21742538-|NM\_145061|SKA3 | SKA3 | -1.141073754 | 0.453421984 | 0.001159951 | down |
|  | BNC2 | -1.298780062 | 0.406469762 | 0.025902261 | down |
| hsa\_circ\_0020078|chr10:116590610-116596005+|NM\_020940|FAM160B1 | FAM160B1 | -1.333527999 | 0.396796719 | 0.036409876 | down |
| hsa\_circ\_0098286|chr12:28408513-28460682+|ENST00000545336.1|CCDC91 | CCDC91 | -1.373730403 | 0.385892149 | 0.017336057 | down |
| hsa\_circ\_0008583|chr3:196817782-196846401-|NM\_004087|DLG1 | DLG1 | -1.434346227 | 0.370014516 | 0.007607512 | down |
| hsa\_circ\_0002970|chr15:81199003-81201647+|NM\_018689|KIAA1199 | CEMIP | -1.806310988 | 0.285921103 | 0.01867079 | down |
|  | HIBADH | -1.962011306 | 0.256670375 | 0.031679502 | down |
| hsa\_circ\_0005315|chr2:8910799-8917022-|NM\_020738|KIDINS220 | KIDINS220 | -1.964302581 | 0.256263057 | 0.004778604 | down |
| hsa\_circ\_0008037|chr19:34922765-34925873+|NM\_005499|UBA2 | UBA2 | -2.005118164 | 0.249114661 | 0.036780474 | down |
|  | WDR20 | -2.010653802 | 0.248160637 | 0.01779842 | down |
| hsa\_circ\_0030377|chr13:61013821-61060082+|NM\_001146070|TDRD3 | TDRD3 | -2.096337899 | 0.233851097 | 0.026545774 | down |
| hsa\_circ\_0001466|chr5:6604250-6605521-|NM\_001193455|NSUN2 | NSUN2 | -2.23563124 | 0.212328327 | 0.047415129 | down |
|  | NAA35 | -2.23563124 | 0.212328327 | 0.023751186 | down |
|  | UHRF2 | -2.298840026 | 0.203226434 | 0.003755572 | down |
| hsa\_circ\_0025693|chr12:27075548-27081838-|NM\_018164|C12orf11 | ASUN | -2.577676035 | 0.167510561 | 0.048898912 | down |
| hsa\_circ\_0007090|chr7:90001468-90007525+|NM\_033107|GTPBP10 | GTPBP10 | -2.609398132 | 0.163867524 | 0.017672714 | down |
|  | PRKCA | -2.900571407 | 0.133918631 | 0.00616812 | down |
| hsa\_circ\_0008244|chr4:122725776-122731254+|NM\_001034194|EXOSC9 | EXOSC9 | -2.93099535 | 0.131124089 | 0.025643836 | down |
| hsa\_circ\_0046965|chr18:12356692-12371690-|NM\_006796|AFG3L2 | AFG3L2 | -2.953004029 | 0.129138938 | 0.003378546 | down |
| hsa\_circ\_0003183|chr8:61496766-61504528+|NM\_002865|RAB2A | RAB2A | -2.955117998 | 0.12894985 | 2.19222E-06 | down |
| hsa\_circ\_0018069|chr10:30315031-30318795-|NM\_020848|KIAA1462 | KIAA1462 | -3.030238363 | 0.122407311 | 0.013549711 | down |
| hsa\_circ\_0095749|chr11:34097782-34098189+|NM\_005898|CAPRIN1 | CAPRIN1 | -3.119609042 | 0.115054631 | 0.01802915 | down |
| hsa\_circ\_0100857|chr13:75930282-75936743-|ENST00000377636.3|TBC1D4 | TBC1D4 | -3.153527247 | 0.112381211 | 0.01915973 | down |
| hsa\_circ\_0006758|chr1:165859440-165860559+|NM\_012474|UCK2 | UCK2 | -3.346738739 | 0.09829496 | 2.59409E-05 | down |
|  | GK5 | -3.568980577 | 0.084261618 | 0.012111185 | down |
|  | EML1 | -3.692366357 | 0.077354747 | 6.41476E-06 | down |
| hsa\_circ\_0081892|chr7:106921744-106938791-|NM\_001161520|COG5 | COG5 | -3.856073569 | 0.069056759 | 0.037101636 | down |
| hsa\_circ\_0017310|chr1:246754813-246755243+|NM\_152609|CNST | CNST | -3.896694672 | 0.067139487 | 0.000287359 | down |
| hsa\_circ\_0008541|chrX:149631037-149642074+|NM\_005491|MAMLD1 | MAMLD1 | -3.983652785 | 0.063212217 | 0.03986008 | down |
| hsa\_circ\_0006482|chr16:67070541-67116211+|NM\_022845|CBFB | CBFB | -4.179910499 | 0.05517236 | 0.026327105 | down |
| hsa\_circ\_0088095|chr9:115200710-115204050+|NM\_032303|HSDL2 | HSDL2 | -4.208216387 | 0.05410042 | 0.022640062 | down |
| hsa\_circ\_0010444|chr1:21083658-21106404-|NM\_016287|HP1BP3 | HP1BP3 | -4.239899833 | 0.052925257 | 0.014589315 | down |
| hsa\_circ\_0101384|chr14:104168410-104170593+|ENST00000555832.1|XRCC3 | na | -4.527628799 | 0.043355872 | 0.000246027 | down |
| hsa\_circ\_0000277|chr11:14793482-14810788+|NM\_000922|PDE3B | PDE3B | -4.716016196 | 0.038048511 | 9.70577E-05 | down |