

**Mice\_onset\_spleen\_DE\_genes\_fc****Gene**            **log2 Fold Change**

AAAS	-1.1081614
AAED1	-0.6094956
AAGAB	-0.3715901
AAMDC	-0.7769148
AARS	-0.4350281
AARSD1	-0.4622111
AASS	-3.2934823
AATF	-0.4051771
AATK	-1.5614734
ABAT	-1.26049
ABCA2	-0.4896455
ABCA3	-0.3024902
ABCA7	-0.5232725
ABCA8A	-2.4815114
ABCA8B	-2.5012186
ABCA9	-3.6531928
ABCB10	-1.1183777
ABCB4	-1.3778749
ABCB6	-1.8042278
ABCB7	-0.8217959
ABCB8	-0.4144793
ABCC3	-2.5026407
ABCC9	-0.7629452
ABCD1	-1.0336969
ABCD2	-2.3271794
ABCD4	-0.1774926
ABCF2	-0.2728663
ABCG1	-0.6242147
ABCG2	-1.2413669
ABCG3	-1.4159253
ABCG4	-1.3622556
ABHD1	-0.4988551
ABHD10	-0.4758031
ABHD11	-0.4339414
ABHD12	-0.8446856
ABHD14B	-0.7966716
ABHD16A	-0.7772727
ABHD17A	-0.6799817
ABHD4	-0.9494858
ABHD5	-0.398056
ABHD6	-0.3457077
ABHD8	-0.3427458
ABI3BP	-0.2848938

ABL1	-0.7585282
ABTB1	-0.6223116
ACAA2	-0.7274861
ACACA	-0.5378742
ACACB	-1.4677246
ACAD10	-0.2141581
ACAD12	-0.4031947
ACADL	-0.3438821
ACADM	-0.748848
ACADS	-1.1947529
ACADVL	-0.4525008
ACAP3	-0.8508253
ACAT1	-0.9403515
ACAT3	-0.5055242
ACBD4	-0.8625708
ACBD6	-0.8991246
ACCS	-0.3137159
ACD	-0.3716693
ACE	-1.4714704
ACER3	-0.3864188
ACHE	-1.2374642
ACKR1	-1.894939
ACKR3	-0.4320736
ACKR4	-1.4766409
ACLY	-0.2151856
ACMSD	-2.0395768
ACNAT2	-0.3830395
ACO1	-0.456001
ACO2	-0.3699088
ACOT1	-1.1463907
ACOT11	-0.8038998
ACOT13	-0.6315985
ACOT2	-0.3774633
ACOT6	-0.6699174
ACOT8	-0.2986774
ACP1	-0.8378701
ACSF3	-0.4667978
ACSL1	-0.7436118
ACSL5	-0.4621592
ACSL6	-0.5373285
ACSS1	-0.7383094
ACSS2	-1.2841713
ACTL6A	-0.9709673
ACTR10	-0.3050308
ACTR1A	-0.4805341

ACTR8	-0.6182208
ACVR2B	-0.8964365
ACVRL1	-0.4276085
ACY1	-0.2933691
ACY3	-2.5495112
ACYP2	-0.2893617
ADAM10	-0.9183335
ADAM22	-1.9708323
ADAM33	-0.2529903
ADAMDEC1	-1.1601601
ADAMTS15	-0.3488071
ADAMTS16	-1.8044138
ADAMTS3	-0.1867909
ADAMTSL2	-0.6154304
ADAMTSL5	-0.9237418
ADAP2	-0.9125447
ADCY1	-2.6824827
ADCY2	-0.7473187
ADCY3	-0.5848532
ADCY5	-0.7965212
ADCY6	-0.6925588
ADCY7	-0.3579245
ADCY9	-1.4262109
ADD1	-0.7230635
ADD2	-1.913733
ADD3	-0.7009502
ADIG	-0.9150147
ADIPOQ	-3.6276762
ADIPOR1	-0.7520094
ADK	-0.5053282
ADNP2	-0.2591524
ADORA3	-0.4536221
ADPRHL2	-0.2525034
ADRA1D	-1.6357365
ADRB1	-1.5901811
ADRB2	-0.2826214
ADRB3	-1.3249574
ADSS	-0.6705833
ADSSL1	-0.8151374
AEBP1	-0.2626185
AF251705	-1.2305107
AFAP1	-0.6011396
AFAP1L1	-0.9895561
AFAP1L2	-1.418262
AFG3L1	-0.3929634

AFG3L2	-0.5162673
AFMID	-0.8878346
AGAP1	-0.5651822
AGBL1	-2.1525364
AGFG2	-1.3432646
AGL	-1.0940442
AGMO	-1.3120759
AGO1	-0.4140744
AGO2	-1.130835
AGO4	-0.4607551
AGPAT2	-0.2953219
AGPAT4	-0.354527
AGPS	-0.2413077
AGTPBP1	-0.3210487
AGTR1A	-0.6857758
AGTRAP	-0.3514924
AHCTF1	-0.564899
AHCY	-0.3403974
AHCYL1	-0.2942476
AHDC1	-0.6076565
AHNAK	-0.370575
AHRR	-1.5959096
AHSP	-1.135745
AIF1	-0.3614397
AIFM1	-0.282701
AIFM2	-1.2656503
AIG1	-0.9814196
AIMP1	-0.2125034
AIP	-0.4838681
AK1	-2.3612928
AK3	-1.1138129
AK6	-0.272285
AK8	-1.1778402
AKAP11	-0.4242802
AKAP8L	-0.4439011
AKIP1	-1.5009398
AKNAD1	-0.9928169
AKR1A1	-0.4689627
AKR1B10	-0.7719789
AKR1B7	-2.8820393
AKR1B8	-0.4830198
AKR1C13	-0.2603102
AKR7A5	-0.4945459
AKT1	-0.5149775
AKT1S1	-0.4202509

ALAD	-1.6866851
ALAS2	-1.103662
ALCAM	-0.3536706
ALDH16A1	-0.2377877
ALDH18A1	-1.0835614
ALDH1A1	-0.828629
ALDH1A7	-0.9344695
ALDH1L1	-0.8375068
ALDH2	-0.6488233
ALDH3B1	-0.6064968
ALDH3B2	-2.1675475
ALDH4A1	-0.6205897
ALDH6A1	-0.4584971
ALDH9A1	-0.4289813
ALDOC	-0.4811478
ALG13	-0.5022059
ALG2	-0.4446225
ALG5	-0.2762585
ALG6	-1.086601
ALG9	-0.5803804
ALKBH7	-0.5651383
ALKBH8	-0.8201089
ALMS1	-0.5750089
ALOX12	-1.1308966
ALOX12B	-0.2712562
ALOX12E	-3.0897586
ALOX15	-3.6403115
ALOX5	-1.2491975
ALOX5AP	-0.5409083
ALOXE3	-2.9196155
ALS2CR12	-0.8403153
ALYREF	-0.7282052
ALYREF2	-0.5690789
AMD2	-0.5768085
AMDHD2	-0.4061775
AMER1	-0.2431741
AMMECR1	-0.5925269
AMOT	-1.86271
AMPD3	-1.435956
AMZ1	-0.9002705
ANAPC1	-0.2081046
ANAPC10	-0.8786244
ANAPC15	-0.569232
ANAPC4	-0.2767582
ANAPC5	-0.7775784

ANGEL2	-0.2808962
ANGPT1	-0.9904516
ANGPTL2	-2.0759478
ANGPTL6	-0.8285132
ANGPTL7	-1.1321316
ANK	-1.3317056
ANK1	-1.3060684
ANK3	-0.6904235
ANKLE1	-1.3078747
ANKMY2	-0.7234576
ANKRD13A	-0.812583
ANKRD13B	-0.371192
ANKRD2	-2.358388
ANKRD24	-1.558269
ANKRD26	-0.5122492
ANKRD29	-0.4700086
ANKRD32	-0.7100315
ANKRD35	-0.8470357
ANKRD39	-0.2416587
ANKRD40	-0.2692373
ANKRD50	-1.1190543
ANKRD54	-0.9159765
ANKRD61	-0.2865098
ANKRD9	-1.216249
ANKS1	-0.3315601
ANLN	-0.793911
ANO1	-1.9532299
ANO10	-0.4288096
ANO6	-0.2004509
ANP32A	-0.4884181
ANP32B	-0.3923764
ANP32E	-0.3702188
ANTXR1	-0.9197235
ANXA8	-0.6550348
ANXA9	-0.2816327
AOX1	-2.1087322
AP1AR	-0.6661587
AP1M1	-0.306304
AP1S1	-0.4100051
AP2A1	-1.3934164
AP2A2	-1.4049568
AP2B1	-0.654346
AP2M1	-0.2617545
AP2S1	-0.4184389
AP3D1	-0.1792998

AP3S1	-0.2749567
AP3S2	-0.3073659
AP4B1	-0.6682305
AP4M1	-0.986908
AP5B1	-0.2051134
APAF1	-0.2847004
APBA1	-2.3831398
APC2	-0.8119464
APCDD1	-1.7675619
APEH	-0.8806725
API5	-0.5179071
APLF	-0.8377147
APLNR	-2.4473612
APLP2	-0.5174551
APMAP	-0.4898863
APOA1BP	-0.5447044
APOBR	-0.4477086
APOC1	-0.3880048
APOC4	-1.4455671
APOE	-0.2471652
APOF	-2.0774646
APOL10A	-1.6321363
APOL10B	-0.7781177
APOL11B	-1.2274323
APOL8	-1.8691325
APOO	-0.6337915
APOOL	-0.4787669
APPL2	-1.5748801
APRT	-0.3047271
AQP1	-1.5611434
AQP11	-1.1747606
AQP2	-0.9345198
AQP9	-1.5404077
ARAP3	-0.2753544
ARF2	-0.473156
ARF5	-0.9124551
ARF6	-0.6400642
ARFGAP3	-0.3915458
ARGLU1	-0.2935934
ARHGAP10	-1.623204
ARHGAP12	-0.9662595
ARHGAP15	-0.2955508
ARHGAP18	-1.73283
ARHGAP19	-0.6093874
ARHGAP20	-1.0522473

ARHGAP21	-0.5143876
ARHGAP23	-0.9385719
ARHGAP33	-2.0145848
ARHGAP39	-0.8987794
ARHGAP44	-1.2672029
ARHGAP5	-0.4931536
ARHGAP6	-0.7979732
ARHGAP9	-0.3975468
ARHGEF1	-0.2433715
ARHGEF10L	-0.3081527
ARHGEF12	-0.6800962
ARHGEF17	-0.7993956
ARHGEF2	-0.1935911
ARHGEF25	-0.7352428
ARHGEF39	-0.9339542
ARHGEF4	-0.9461815
ARHGEF40	-1.2967134
ARHGEF9	-1.8468416
ARID4A	-0.5321965
ARL11	-3.21238
ARL2	-0.3658423
ARL2BP	-0.3962064
ARL4A	-1.1896315
ARL4D	-1.0081918
ARL6	-0.4362187
ARL6IP4	-0.3863802
ARL6IP5	-0.4338293
ARMC1	-0.5021739
ARMC10	-0.3769984
ARMC2	-1.5569332
ARMC3	-0.2451773
ARMC5	-0.311152
ARMC6	-0.5483198
ARMC7	-0.5056877
ARMC9	-1.2387071
ARMCX1	-0.8836446
ARMCX5	-0.3919096
ARNT	-0.2201877
ARNT2	-1.5268283
ARPC1A	-0.7073216
ARPC4	-0.4957585
ARRB1	-1.3179111
ARRB2	-0.7031331
ARRDC2	-0.9036112
ARSB	-0.7602854



ARSG	-0.550868
ARSI	-1.2343285
ARSK	-0.7710412
ART3	-0.9749987
ART4	-1.1280556
ART5	-0.7042174
ARTN	-0.9627492
AS3MT	-0.6114125
ASAH1	-1.0456109
ASAP1	-0.6626859
ASB1	-1.1382866
ASB16	-1.6822917
ASB17	-2.0408084
ASB2	-0.7195158
ASB6	-0.6223397
ASCC1	-0.6557384
ASF1A	-0.5514083
ASF1B	-1.0834951
ASGR2	-1.1318142
ASH2L	-0.3008962
ASL	-0.5217385
ASNS	-0.2633176
ASNSD1	-0.3283567
ASPA	-2.6142569
ASPH	-1.0630894
ASPM	-1.1457558
ASRGL1	-0.7385128
ATAD2	-0.4710236
ATAD5	-0.9117003
ATE1	-0.2386251
ATF1	-0.6529594
ATF2	-0.2892952
ATF6B	-0.3526697
ATG10	-0.4896462
ATG101	-0.2490206
ATG12	-0.1934166
ATG14	-0.2710862
ATG2A	-0.770463
ATG4B	-1.1003895
ATG4C	-1.0032613
ATG4D	-0.7006693
ATG7	-0.6147528
ATG9A	-0.3494921
ATL1	-0.8186243
ATL2	-0.4782047

ATOH8	-1.3760941
ATP11B	-0.6503768
ATP13A2	-0.8835845
ATP1A1	-0.536571
ATP1A2	-1.9479728
ATP1A3	-1.5698354
ATP1B2	-2.0785599
ATP2A3	-0.6314697
ATP2B4	-1.127881
ATP5B	-0.2932582
ATP5C1	-0.4121561
ATP5C1-PS	-0.4537711
ATP5D	-0.739717
ATP5E	-0.3513866
ATP5F1	-0.4229431
ATP5G2	-0.2143564
ATP5H	-0.3028603
ATP5J	-0.3722701
ATP5J2	-0.4344559
ATP5K	-0.5426803
ATP5L	-0.3290534
ATP5O	-0.570024
ATP5S	-1.0155463
ATP6	-0.2932868
ATP6AP1	-0.2779985
ATP6AP2	-0.2765546
ATP6V0A1	-1.0254803
ATP6V0B	-0.6032267
ATP6V0C	-0.4320879
ATP6V0D1	-0.4554339
ATP6V0D2	-1.5550904
ATP6V0E2	-0.6400986
ATP6V1E1	-0.5227752
ATP7B	-1.3978078
ATP8A2	-0.4818656
ATPAF2	-0.4269557
ATPIF1	-0.892725
ATRAID	-0.6806927
ATRIP	-0.3048935
ATRX	-0.4166498
ATXN1	-0.4042013
ATXN7L3	-0.181562
ATXN7L3B	-0.2165437
AUH	-0.440412
AUP1	-0.4866505

AURKA	-0.8131867
AUTS2	-0.4778378
AWAT1	-0.3062232
AWAT2	-0.5459259
AXIN1	-0.2778893
AXL	-0.915123
B3GALNT2	-0.4428372
B3GALT1	-0.1946011
B3GAT3	-0.4913688
B3GLCT	-0.4508891
B3GNT1	-0.6768947
B3GNT8	-1.651824
B3GNT9	-1.0296144
B4GALNT2	-0.4042077
B4GALT1	-0.5339975
B4GALT2	-0.8134465
B4GALT4	-1.4300063
B4GALT6	-0.7181349
B630019K06I	-0.8519642
B9D1	-0.7304428
B9D2	-0.1874332
BACE1	-1.0034175
BAD	-0.7057958
BAG1	-0.7677956
BAG2	-1.3382573
BAG4	-0.5069206
BAG6	-0.5864768
BAHD1	-0.3768687
BAI1	-1.1068649
BAI2	-2.1029873
BAK1	-0.7195692
BANF1	-0.8292995
BAP1	-0.6371164
BARD1	-0.7721858
BAZ1B	-0.229743
BAZ2A	-0.8434014
BBIP1	-0.416589
BBS1	-1.0508342
BBS10	-0.3633485
BBS4	-0.356688
BBS5	-0.3663497
BBS7	-1.1093931
BBS9	-0.4862785
BCAM	-1.2268009
BCAP29	-0.575099

BCAR1	-0.4463153
BCAS2	-0.5855489
BCAS3	-0.6269133
BCAT2	-0.6985965
BCCIP	-0.2429895
BCKDHA	-1.1835871
BCKDK	-1.2758007
BCL11A	-0.3077025
BCL2L1	-0.6241565
BCL2L12	-0.5859399
BCL2L13	-0.3204336
BCL2L2	-0.7630665
BCL7A	-0.3006854
BCL7B	-0.2588463
BCL7C	-0.6025224
BCL9L	-0.7750812
BCO2	-0.8364234
BCORL1	-0.6476615
BDH1	-0.2362089
BDH2	-0.3025158
BECN1	-0.7116451
BEND5	-0.1810722
BEND7	-0.6908364
BET1	-0.4846263
BEX4	-0.9968405
BGN	-0.4232025
BICC1	-0.410224
BICD1	-1.0914147
BIK	-1.3528528
BIN2	-0.5253601
BIN3	-0.4089379
BIRC5	-0.9618778
BIVM	-0.6548729
BLCAP	-0.5062337
BLM	-1.3135214
BLOC1S3	-0.5766203
BLOC1S5	-1.0033555
BLVRA	-0.9767003
BLVRB	-1.2776384
BMF	-0.6535883
BMP2	-0.9741015
BMP4	-1.4660149
BMP8B	-1.0392172
BMPR2	-0.4436703
BMX	-1.0603056

BMYC	-0.4159651
BNC1	-1.4884205
BNIP1	-0.5737977
BNIP3L	-0.8704991
BOLA1	-0.2859459
BOLA3	-0.8345661
BORA	-1.0282738
BPGM	-0.4118862
BPHL	-0.7501702
BPIFA6	-0.5730598
BRAP	-0.2529426
BRCA1	-1.1001823
BRCA2	-1.1441307
BRD3	-0.5726714
BRD7	-0.1847115
BRD9	-0.2234101
BRE	-0.3176847
BRF1	-0.5879312
BRF2	-0.5000889
BRINP2	-0.7391353
BRIP1	-0.6740806
BRK1	-0.5278931
BRMS1	-0.383894
BRMS1L	-0.2502942
BRPF3	-0.8233557
BSCL2	-0.7612505
BSDC1	-0.9186053
BSG	-1.1615944
BSPH1	-0.3238599
BTAF1	-0.6159682
BTBD2	-0.9425545
BTBD6	-0.5812535
BTD	-0.8770633
BTF3	-0.254046
BTG2	-0.7994762
BTNL10	-0.6356196
BTNL2	-0.714356
BTNL9	-0.6544013
BTRC	-1.1070211
BUB1	-0.8573804
BUB1B	-1.2982125
BUB3	-0.5232024
BVES	-1.2848761
BYSL	-0.3398509
C1GALT1	-0.4501662

C1QA	-0.6348519
C1QB	-0.4179535
C1QC	-0.861268
C1QTNF2	-1.768409
C1QTNF4	-1.4835019
C1QTNF5	-1.774513
C1QTNF6	-0.9593585
C1QTNF7	-1.5321617
C1RL	-0.3760259
C1S1	-0.3424616
C2CD2L	-0.5765224
C2CD3	-0.5148277
C2CD4C	-0.7063441
C2CD4D	-0.3827984
C3AR1	-1.8699608
C5AR2	-1.2629962
C6	-1.3031902
C8G	-0.7330873
CAAP1	-0.6759892
CABIN1	-0.9144011
CABLES2	-0.3988862
CABYR	-0.5547359
CACHD1	-0.8637748
CACNA1G	-1.5593786
CACNG7	-0.2595236
CACTIN	-0.6014481
CADM1	-0.7703366
CADM3	-0.8171952
CADM4	-0.5547323
CADPS2	-0.4537725
CAGE1	-0.5655103
CALCOCO1	-0.867213
CALM2	-0.5856361
CALM3	-0.9322233
CALM4	-1.0024478
CALML4	-2.10292
CALR3	-0.5937843
CAMK1	-0.8922842
CAMK1D	-0.8138809
CAMK1G	-1.7908874
CAMK2G	-0.3001909
CAMKMT	-0.4295993
CAMP	-0.8864594
CAMSAP2	-1.042028
CAMSAP3	-0.3779371

CAP2	-1.8056417
CAPN1	-0.6911006
CAPN10	-0.3813834
CAPN3	-0.7754543
CAPN5	-0.8138633
CAPN9	-0.9536369
CAPNS1	-0.4553461
CAPRIN2	-0.333765
CAPZB	-0.4749694
CAR1	-1.7250752
CAR2	-1.3727126
CAR3	-4.161031
CAR4	-0.7420273
CAR7	-0.858911
CAR9	-0.6870406
CARD10	-1.0356302
CARD9	-1.9641693
CARF	-0.9003954
CARHSP1	-1.0782261
CARKD	-0.2956252
CARM1	-0.7408805
CASC5	-1.0162976
CASKIN2	-1.2255149
CASP12	-0.9197407
CASP14	-0.6286507
CASP2	-0.3306775
CASP3	-0.5603166
CASP6	-0.8670349
CASP7	-0.3554444
CASP8AP2	-0.5033097
CASP9	-0.5463433
CASQ2	-1.4818094
CAST	-0.6384435
CAT	-0.9344244
CAV1	-2.6803029
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DNAJA4	-0.4607368
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DOLK	-0.2891812
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DR1	-0.3037515
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DTD2	-0.9622543
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DYNLL2	-0.8691654
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EBPL	-0.2904325
ECD	-0.5371203
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ECT2	-0.7110572
EDF1	-0.2357249
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LRFN3	-0.5275788
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MXRA8	-1.754519
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MYEF2	-0.375073
MYG1	-0.6788287
MYH1	-2.038703
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MYH8	-1.7083135
MYL12B	-0.4328442
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MYLK3	-0.8353479
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SIRPB1A	-0.5739174
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UBXN1	-0.6203771
UBXN2B	-0.7975769
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ABCA4	2.04045
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ABI1	0.28576326
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ABL2	0.43784714
ABLIM1	0.70534134
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ABR	0.29538298
ABTB2	1.9015112
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ACE2	0.5566695
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ACP2	0.46525192
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ACTG2	0.82288265
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AGRP	0.5703745
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AKAP13	0.29281187
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AKAP4	0.45289373
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AKAP9	0.65987444
AKNA	0.56460476
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ALDH7A1	0.63282204
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ALG8	1.5539742
ALKBH1	0.6952691
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ALLC	0.98006487
ALPK1	1.1812987
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ALPL	1.1219263
ALS2CL	0.5067625
AMACR	0.21464348
AMBP	2.4550974
AMER2	1.1012571
AMICA1	0.8566408
AMMECR1L	0.25661802
AMN1	0.7920985
AMOTL1	0.81910396
AMT	1.8090026
AMY1	8.933637
AMY2A5	10.682104
ANG	1.2975545
ANG2	1.080035
ANG3	1.2640607
ANG4	1.83077
ANGEL1	0.5770407
ANGPT2	1.7490444
ANGPTL1	0.7817974
ANKLE2	0.31977367
ANKRA2	0.51231813

ANKRD12	0.35348845
ANKRD16	0.29847956
ANKRD22	1.4497633
ANKRD23	0.5338087
ANKRD33	0.7991991
ANKRD33B	1.293405
ANKRD34B	0.8244705
ANKRD37	0.27302217
ANKRD52	0.34333086
ANKRD66	1.6590672
ANTXR2	0.38049507
ANXA2	0.37916756
ANXA3	0.24383068
ANXA4	0.3661337
AOC2	0.321002
AOC3	3.119223
AP1G1	0.4368949
AP1M2	0.52628183
AP1S3	0.3126812
AP3B1	0.3074956
AP4E1	1.4080715
AP5Z1	0.66732407
APBB3	0.511075
APEX2	0.31138706
APH1B	0.24391937
APOA2	1.2984838
APOBEC1	1.1957827
APOC3	0.4038856
APOD	0.94364667
APOL7C	0.6935096
APOLD1	1.608952
APPBP2	0.21443653
APPL1	0.45333767
AQP12	2.234786
AQP3	0.6640334
AQP4	0.9668882
AQP8	1.2737021
ARAP2	1.4470863
AREG	2.9152014
ARG2	1.5405307
ARHGAP200!	1.9350824
ARHGAP22	1.7365999
ARHGAP27	0.43564367
ARHGAP30	0.8427048
ARHGAP31	0.47335958

ARHGAP330	0.8171365
ARHGAP8	1.5221047
ARHGEF18	0.36161423
ARHGEF19	0.66371155
ARHGEF38	0.86949396
ARID3A	0.94613266
ARID4B	0.7621367
ARID5A	1.9361796
ARID5B	0.59373903
ARL1	0.34607935
ARL13B	0.43302917
ARL14EP	0.6131892
ARL5B	0.66397667
ARL5C	1.2303071
ARL9	0.55721736
ARMC12	1.1530497
ARMCX2	0.64796257
ARPC1B	0.6961031
ARPC2	0.1843276
ARRDC4	0.7540288
ARRDC5	0.34976768
ARSA	0.22167397
ARSJ	1.8047252
ART2A-PS	0.44674015
ARV1	0.37481785
ARXES2	0.3354144
ASAP3	1.2133412
ASB10	0.63561773
ASB13	0.94354343
ASB4	2.0821524
ASCC3	0.3526187
ASCL1	0.7848308
ASH1L	0.5184431
ASIC3	0.5613792
ASIC4	0.65601254
ASIC5	1.399009
ASPHD1	1.1587014
ASPRV1	1.2596755
ASTE1	0.745811
ASTL	1.6065438
ASTX	0.9966743
ATAD1	0.2503481
ATAD3A	0.59560347
ATF3	1.8306861
ATF5	0.58951473

ATF6	0.21973658
ATG16L2	0.8205457
ATMIN	0.24996138
ATOH7	2.346559
ATP10A	0.7423806
ATP11A	1.1828985
ATP2A1	0.49739456
ATP6V0A2	0.3628521
ATP6V1G2	0.6817355
ATP7A	0.21508455
ATP8B4	0.21496391
ATP9B	0.6464138
ATRNL1	0.47647858
ATXN1L	0.523139
ATXN7L1OS2	0.7953265
AVPI1	0.81249714
AVPR1A	3.1798959
AVPR2	5.3302655
B3GALNT1	1.2882376
B3GALT5	1.1077776
B3GALT6	0.4453025
B3GAT1	0.9086764
B3GAT2	0.27390575
B3GNT2	0.44043016
B3GNT7	1.890636
B3GNTL1	0.20042562
B4GALT5	1.3138275
B9D1OS	0.8664031
BACH1	1.2099667
BAG3	0.42576647
BAG5	0.22192717
BANK1	0.31235886
BARHL1	0.49935174
BASP1	1.1139331
BATF	1.839428
BATF2	1.8773184
BAX	2.0428948
BAZ1A	0.37345982
BAZ2B	0.23494482
BCAR3	0.38033867
BCAS1	1.8596649
BCAS3OS2	0.42742014
BCAT1	1.2940612
BCDIN3D	0.24574566
BCKDHB	0.88318586



BCL11B	0.3948927
BCL2A1C	2.4746747
BCL2A1D	2.2620535
BCL2L11	0.67236257
BCL2L14	1.2742586
BCL3	2.5083609
BCL6	0.7524929
BCL6B	0.47641706
BCL9	1.4558625
BCR	1.0523667
BDKRB1	0.98528695
BDP1	0.31192732
BEND3	0.4505849
BEND4	0.21742392
BEX1	0.9409485
BEX2	1.9715011
BFAR	0.8008642
BFSP2	0.22245121
BHLHE40	0.5996504
BHMT	0.45696402
BIRC2	0.67487335
BIRC3	1.7918692
BLNK	1.0292406
BLOC1S6	0.23131275
BMP7	1.1134183
BMP8A	1.20294
BMPER	0.83058643
BMPR1B	0.9099252
BOLL	1.8718915
BOP1	0.31506872
BPIFB5	1.4002476
BPIFB6	2.583274
BPTF	0.20314598
BRD1	0.3221345
BRI3	0.2541132
BRICD5	0.2507131
BRIX1	0.27194977
BSND	0.9713981
BST1	1.2845159
BST2	1.5240335
BTBD16	0.63553953
BTBD19	0.43654394
BTBD8	0.58777523
BTBD9	0.25152063
BTG1	0.5996914

BTG3	0.34448576
BTK	0.85606337
BTLA	0.75589705
BZW2	0.22883654
C1RA	0.27487373
C2	0.42484283
C2CD4B	1.3838375
C3	0.33897066
C5AR1	1.3471262
CABLES1	0.57879305
CABP2	3.1404312
CABP4	0.55923843
CABP5	1.580451
CACNA1S	0.60127115
CACNB3	0.9284253
CACNG6	0.31261134
CACUL1	0.5558448
CALHM1	0.33333874
CAMK2N1	0.54488564
CAMK4	1.1173449
CAMKK1	0.3281417
CAMSAP1	0.272007
CAMTA1	1.9743655
CAMTA2	0.84701395
CANT1	0.24615335
CAPNS2	0.9638338
CAR12	1.1054156
CAR13	1.804841
CARD6	0.6339812
CARNS1	0.20661879
CARTPT	1.2735717
CASP1	0.335742
CASP16	1.5396774
CASP4	1.9992933
CASP8	0.2250328
CASZ1	0.27714944
CATIP	0.4687338
CATSPER1	1.4929333
CATSPER2	0.44254708
CATSPER4	1.3029351
CBFB	0.72570276
CBLB	0.43734598
CBS	1.8688157
CBX4	0.33646822
CC2D1B	0.2968936

CC2D2B	0.9346578
CCBE1	0.3549435
CCBL2	0.8254967
CCDC102A	0.4311695
CCDC11	1.7759421
CCDC114	0.5498078
CCDC115	0.5314684
CCDC13	0.42995167
CCDC163	0.26022005
CCDC169	0.87579703
CCDC177	1.2715623
CCDC183	0.98435116
CCDC184	0.8777137
CCDC33	0.83659434
CCDC42OS	1.8158078
CCDC50	0.78244925
CCDC59	0.32857132
CCDC62	0.51717806
CCDC64	0.32822037
CCDC66	0.4140768
CCDC78	4.858893
CCDC79	0.5938363
CCDC81	2.5879674
CCDC85A	1.2504897
CCDC86	0.4967556
CCDC88B	0.6668482
CCDC9	0.2932105
CCDC93	0.30687833
CCKAR	0.7321992
CCKBR	1.0437646
CCL1	1.0456791
CCL11	3.5423784
CCL12	3.931994
CCL17	3.5015655
CCL19	0.9074836
CCL2	5.819554
CCL25	0.5363841
CCL3	6.103713
CCL4	5.4779468
CCL5	0.49696016
CCL7	4.6872835
CCND2	0.78052616
CCNG2	0.27623463
CCNL1	0.34022474
CCNY	2.7571352

CCNYL1	0.9542928
CCR6	0.23641872
CCR7	1.4655972
CCR8	0.92099
CCRL2	2.0216956
CCSER2	0.5244436
CCT3	0.28413677
CD14	3.7933016
CD163L1	1.7561352
CD164	0.32704735
CD19	0.5951886
CD2	0.22718763
CD200	1.3166409
CD244	0.892683
CD247	0.33286548
CD274	1.7445025
CD300LF	0.88565874
CD302	0.8065386
CD33	1.1362553
CD38	1.2412539
CD3D	0.5978079
CD3E	0.6034322
CD40	1.3697929
CD44	1.435143
CD5	0.34613562
CD53	0.35348272
CD55	0.5503683
CD6	0.59400225
CD63	0.5093384
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CD72	0.57064486
CD83	1.3268585
CD86	0.50169086
CD97	0.20762444
CDC42EP2	1.4437413
CDH15	1.056706
CDH17	1.6016593
CDH2	0.48058844
CDH22	0.69418216
CDH4	0.62566185
CDH5	0.46611023
CDH6	2.2869387
CDK18	0.86310434
CDK5	0.3131175

CDK5R1	0.59495354
CDKL3	0.8093145
CDKN1A	1.0677052
CDKN2B	1.0847149
CDV3	0.25673962
CEACAM16	1.2007523
CEACAM18	1.2359831
CEACAM9	1.0603862
CEBPB	1.6610742
CEBPD	2.164606
CEL	8.703017
CELA1	3.4513607
CELA2A	9.057886
CELA3B	9.761423
CELSR1	0.46383142
CEMIP	0.9579022
CEP112OS2	1.2455986
CEP350	0.21299458
CEP85L	1.2502832
CEPT1	0.40971804
CERS3	1.5419362
CERS4	0.5169058
CERS5	0.35156345
CERS6	1.3139958
CES1G	0.6732378
CES1H	0.9824357
CES2B	0.85224223
CES2C	0.90745425
CES5A	0.82472014
CFB	1.4551697
CFLAR	1.3148656
CGA	1.7474618
CH25H	1.797615
CHAC1	0.6021538
CHD2	0.27175283
CHD3	0.34887123
CHD7	0.69517803
CHD8	0.33729982
CHEK1	1.5443735
CHGA	1.6957061
CHIC1	1.4627683
CHIC2	0.23345089
CHIL1	1.389247
CHIL5	1.2350969
CHIL6	2.3499222

CHL1	1.9200888
CHORDC1	0.55809736
CHPF	0.69776964
CHRM3	1.5226142
CHRM4	1.5060077
CHRNA9	0.7685051
CHRN4	1.069269
CHST10	0.55035686
CHST11	0.7948389
CHST7	0.45572948
CIPC	0.8798857
CIR1	0.36391068
CISH	0.90105677
CK137956	1.5243785
CKMT1	1.4991622
CLCA1	0.25597048
CLCA2	0.23627043
CLCF1	0.6638222
CLCN5	0.6668327
CLDN12	0.33205962
CLDN14	1.0531723
CLDN23	0.30943465
CLDN25	0.9755964
CLDN26	1.3426337
CLDN3	1.3676932
CLEC12B	0.5985615
CLEC2D	1.2028956
CLEC2I	0.22589207
CLEC4A1	0.56737137
CLEC4A2	1.2262454
CLEC4D	2.1316385
CLEC4E	3.1272879
CLEC4F	1.5708575
CLEC4N	0.7174654
CLEC5A	3.0684366
CLIC1	0.9331727
CLK2	0.3325224
CLMP	0.8365481
CLN5	0.520833
CLPS	8.613361
CLRN3	0.2509215
CLSTN2	0.30157042
CLTB	0.39460182
CLU	0.29887486
CMA2	0.23810196

CMAH	0.35950184
CMPK2	1.0976906
CMTM6	0.5547118
CMTR1	0.570909
CMTR2	0.47662735
CMYA5	1.6750364
CNBD2	0.73999286
CNGA1	1.0917315
CNIH4	0.25236607
CNKSR3	2.0609608
CNN1	0.23317051
CNN3	0.4507947
CNOT6L	0.7092066
CNR2	0.3412404
CNTNAP5A	1.5010693
CNTRL	0.4639864
COBLL1	0.39996338
COG5	0.5086911
COL10A1	1.106226
COL11A2	0.70867276
COL20A1	0.54530954
COL22A1	3.112515
COL4A1	1.0486717
COL4A2	0.6321354
COL6A4	0.7717855
COL7A1	0.7219181
COL8A1	0.9891794
COMMD7	0.39743423
COPG2OS2	0.20113087
COPS7A	0.5894451
CORT	0.57751894
COX17	0.9592581
COX3	0.1887207
CP	2.1903424
CPA1	9.8069725
CPA2	8.89892
CPB1	11.927186
CPB2	1.4729047
CPHX1	0.70938873
CPLX2	1.4523535
CPNE9	1.1315486
CR2	1.3522501
CREB3	0.4756117
CREB3L1	0.23532963
CREB3L2	0.34491014

CREBBP	0.38971472
CREBL2	1.1286345
CREBZF	0.22847748
CRELD2	0.76067257
CREM	1.7445426
CRIM1	0.61815405
CRIP3	1.2547865
CRISPLD2	1.4883213
CRK	1.0127664
CRLF2	0.32533884
CRLF3	0.78129625
CRNDE	1.4927993
CRNN	1.7955062
CRTC2	0.6992049
CRY2	0.21734762
CRYAA	0.74818707
CRYBA1	1.1005244
CRYBB3	1.7948246
CRYGD	0.7120199
CRYGN	1.1327715
CSF1	0.7434416
CSF2	3.7690778
CSF2RA	0.5287905
CSF2RB	1.158124
CSF2RB2	1.0841818
CSF3	6.319416
CSF3R	0.6080637
CSMD2	1.1372819
CSNK1D	0.34192848
CSPRS	1.0888119
CSRNP1	1.9464216
CSRNP3	0.6559808
CST7	0.45980597
CST8	0.93694615
CSTB	0.45049858
CTGF	0.23427773
CTLA4	2.308488
CTNND1	0.6035881
CTPS	0.67397213
CTPS2	0.26802063
CTRB1	9.197462
CTRC	4.663919
CTRL	6.2564983
CTSO	0.40091372
CTSS	0.21703196



CTSZ	0.46590948
CTTNBP2NL	1.0081077
CTU2	0.46300125
CUZD1	7.1731896
CWC22	1.6203623
CX3CL1	3.4323378
CXCL1	7.3250604
CXCL10	4.017641
CXCL12	0.5335994
CXCL13	2.3379927
CXCL16	1.0202079
CXCL2	5.6254663
CXCL3	3.0072234
CXCL5	4.432497
CXCL9	1.2320042
CXCR1	0.7033982
CXCR2	1.1469035
CXCR5	0.93828917
CXXC4	1.0003572
CYB561	0.77997017
CYB5B	0.31519794
CYB5RL	0.41612554
CYBB	0.4884553
CYCS	0.2683506
CYFIP1	0.5270276
CYFIP2	0.1906619
CYLC2	2.267627
CYLD	0.48851252
CYP1B1	0.7490268
CYP20A1	0.18297267
CYP26A1	0.8602345
CYP26B1	0.9285269
CYP2A22	1.3508763
CYP2D26	0.37534142
CYP2D40	1.1162877
CYP39A1	2.0506868
CYP4A12B	1.2582977
CYP4F13	0.36182976
CYP7B1	2.2117052
CYPT10	1.2691798
CYR61	0.7331028
CYTH1	0.7028928
CYTIP	0.90150833
CYYR1	1.7834916
DAB1	0.5808177

DACH1	0.5351901
DAF2	0.60760117
DANCR	0.8131232
DAPK3	0.25778008
DAPL1	0.62563133
DAPP1	0.4347887
DAW1	1.2408798
DAXX	1.3869424
DBHOS	0.3326521
DBX2	2.2693725
DCAF12L2	1.2772002
DCC	0.9231534
DCLRE1C	0.5432062
DCP2	0.6189332
DCPP3	0.51779985
DCUN1D3	1.092562
DDAH1	1.4020123
DDB2	0.303061
DDIT4	0.53293896
DDT	0.4012351
DDX18	0.3767748
DDX21	0.6092782
DDX24	0.4504881
DDX25	0.95163155
DDX31	0.40789318
DDX43	0.31290746
DDX5	0.17553425
DDX52	0.39063072
DDX54	0.18728542
DDX58	1.5684328
DDX6	0.5794449
DEF6	0.43809462
DEFA2	1.3675883
DEFA3	0.9996884
DEFA-RS10	0.8502908
DEFA-RS12	1.3242004
DEFA-RS2	1.2667251
DEFA-RS4	1.4332705
DEFA-RS7	1.4848251
DEFB33	0.82544804
DEFB35	1.3203938
DEFB36	0.76525116
DENND2D	0.72762966
DERL2	0.2385621
DGAT2	1.4088912

DGKA	0.57899237
DGKEOS	0.5834775
DGKH	1.3733625
DGKK	0.25962758
DGKQ	0.25626612
DHPS	0.23103428
DHRS9	0.81688786
DHX30	0.29147768
DHX33	0.7135472
DHX35	0.26354647
DHX58	0.7275901
DIAP2	0.21021557
DIO3OS	0.4824574
DIRAS1	1.5626166
DIXDC1	0.4390216
DKK2	0.28794646
DLC1	0.49892426
DLK1	1.4977
DLL4	0.9513383
DMBT1	10.251303
DMP1	0.8712063
DMRTC1C2	0.6949365
DMTF1	0.4951601
DMXL2	0.52855873
DNAAF1	0.73006773
DNAH10	0.8067758
DNAH6	0.57681346
DNAJA1	0.7573805
DNAJB5	0.35771322
DNAJB6	0.22159815
DNAJB8	1.4361548
DNAJB9	0.4703641
DNAJC1	0.20097637
DNAJC2	0.7933812
DNAJC21	0.4507804
DNAJC5	0.4271207
DNAJC7	1.3490863
DNASE1	0.86065006
DNASE1L3	1.0190935
DNASE2A	0.4228258
DNASE2B	2.1533074
DOC2G	0.63428307
DOCK10	0.37080336
DOCK4	0.71833324
DOCK5	0.5210371

DOCK8	0.46345615
DOCK9	0.7247877
DPEP3	0.90470743
DPH2	0.7013383
DPH5	0.39263725
DPP7	0.31270933
DPPA4	0.4961648
DPY19L2	0.81016445
DPYSL3	0.19095945
DRAM1	0.8659477
DRD1A	0.5412104
DRD2	1.1189947
DRD5	1.884409
DSC3	0.3245542
DSCAM	0.6309092
DSG1C	1.7194018
DSG2	0.8360057
DSPP	1.3182952
DST	0.6861675
DTX1	0.7947507
DTX2	0.7758236
DTX3L	0.9513917
DUOX1	0.20521164
DUOXA1	0.8612137
DUPD1	1.3860731
DUS3L	0.32794714
DUSP1	1.813592
DUSP11	0.3977909
DUSP12	0.5050149
DUSP16	2.3833256
DUSP18	0.4544046
DUSP2	2.0593934
DUSP4	0.5186863
DUSP5	1.5932579
DUSP6	0.2666397
DUSP7	0.3711319
DUX	0.7578523
DVL3	0.78233385
DYNC1H1	0.28971434
DYNLT3	0.3965454
DYRK2	0.60493517
EBF1	0.68841934
EBI3	1.1847215
EBNA1BP2	0.30365515
ECE1	0.19045973

ECE2	0.8181958
ECEL1	0.67901707
ECHDC3	0.7724271
ECSCR	0.7358885
ECSIT	0.194808
EDN1	2.933407
EDNRA	0.18869972
EEA1	0.92930365
EED	0.23906136
EFCAB14	0.28288078
EFCAB4B	0.51636004
EFCAB8	1.3079057
EFCAB9	0.32098746
EFHD2	0.5673909
EGFBP2	3.795745
EGFEM1	1.2635729
EGFR	1.3677685
EGLN2	1.0447392
EGLN3	0.6499977
EGR1	1.3259578
EGR2	1.4794626
EHD1	1.8000484
EHD3	0.32215166
EHF	1.6203127
EID2	0.44471025
EID3	1.2727227
EIF1A	0.95985746
EIF2AK2	1.036243
EIF2S3Y	1.272197
EIF4A1	0.44537258
EIF4A2	0.7632756
ELK4	0.41202116
ELL3	1.2184806
ELMO1	1.2934918
ELOVL4	0.604054
ELOVL5	0.28433895
ELOVL6	0.4502759
EMB	0.5174694
EMC4	0.30739737
EMR1	0.26265478
ENC1	1.831326
ENO2	0.4744377
ENPP2	0.40311813
ENPP4	0.53787756
ENTPD4	2.36132

EP400	0.24458599
EPAS1	0.28776932
EPB4.1L1	0.808712
EPCAM	0.8339417
EPGN	1.1370211
EPHA10	0.27488494
EPHA6	0.89000845
EPHA7	1.3903358
EPHB2	0.6562104
EPHX4	0.6567023
EPPK1	0.81818175
EPSTI1	0.7107928
EQTN	0.7597511
ERC1	0.19318318
EREG	3.6880367
ERMN	1.3517165
ERN1	0.29063106
ERO1LB	0.28909636
ERP27	0.62116003
ERP44	0.3723774
ERRFI1	3.6864028
ERV3	1.6132131
ESM1	0.48080635
ESPNL	0.4010949
ESR2	0.25822687
ESRP2	3.740818
ESRRB	0.83247924
ETNK1	0.7089286
ETNK2	0.5451572
ETS2	0.9460721
ETV3	1.1135087
ETV3L	0.6535182
ETV6	1.0037618
EVA1C	1.0970707
EXOC1	0.2693348
EXOC3L4	0.5598879
EXOC6B	0.28871775
EXOSC6	0.3405695
EYA4	0.72562337
F10	0.979661
F11R	0.8582082
F13A1	0.22808933
F2R	0.34127092
F3	0.45386267
FABP3	0.89349747

FABP5	0.5709429
FAIM	0.37551165
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FAM118A	0.5516257
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FAM120C	1.077312
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FAM129A	0.49701977
FAM129B	1.4794307
FAM134B	0.42589235
FAM13C	1.6681089
FAM160A1	0.51061606
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FAM162B	0.37344694
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FAM166A	0.55529165
FAM168B	0.31508064
FAM169A	1.2432578
FAM179B	0.19957161
FAM181A	1.1314957
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FAM188A	0.30756044
FAM196A	1.1141329
FAM198A	0.76926327
FAM19A3	0.7724364
FAM206A	0.484941
FAM208A	0.43776846
FAM208B	0.835135
FAM20C	0.90886116
FAM214A	0.25547218
FAM217A	1.5553796
FAM222B	0.8468232
FAM228A	0.95367646
FAM25C	1.4295862
FAM26E	0.4436891
FAM26F	1.0503263
FAM3B	0.5947497
FAM46A	0.30805683
FAM47E	0.66921663
FAM49A	0.71050787
FAM53A	0.30751562
FAM53C	0.30335855

FAM60A	0.7009406
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FAM72A	0.25744343
FAM78B	2.971177
FAM84B	0.641968
FAM89A	0.85476446
FAP	1.6568384
FAS	2.230434
FASL	0.4335568
FASTKD1	0.4213605
FASTKD3	0.56495
FASTKD5	0.19405079
FBL	0.45294046
FBXL12	0.7619157
FBXL5	0.73394156
FBXL7	0.71293354
FBXO22	0.37658596
FBXO24	1.0123429
FBXO39	1.2307179
FBXO4	0.49964476
FBXO47	0.71985245
FBXW10	0.48993587
FBXW11	0.41011906
FBXW13	2.2227733
FBXW17	0.41111422
FBXW19	0.7321477
FBXW26	1.1251721
FCAMR	1.235426
FCER1G	0.53942347
FCGR2B	0.56067276
FCRL1	1.4184222
FERD3L	1.6668253
FFAR1	1.0367787
FFAR2	1.0398083
FGB	2.3891604
FGD3	0.4623294
FGD4	0.7180357
FGD6	0.35151172
FGF17	1.9941056
FGF21	2.7406847
FGF23	0.5094714
FGF3	0.7985103
FGFR1OP	0.29082108
FGFR2	0.33660364
FGG	2.6016498



FHOD1	0.30372238
FHOD3	0.56697226
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FKBP5	1.5647955
FKBP6	3.581771
FLCN	0.19771194
FLNA	0.18988705
FLNB	1.6300769
FLOT1	0.23121119
FLRT3	0.37018967
FMNL2	0.91609573
FMO3	1.9489062
FMO6	1.0296474
FNBP1L	1.1582546
FNDC3B	0.8990803
FNDC7	0.4524274
FOLH1	0.75278735
FOLR4	0.6398196
FOS	2.1918736
FOSL1	1.3210795
FOSL2	1.8208604
FOXA3	0.87757707
FOXC1	0.88847446
FOXE3	1.4129279
FOXF1	1.6151237
FOXJ3	0.33088732
FOXN2	0.3993082
FOXP1	0.37805176
FOXP4	1.3159132
FPR1	2.3586054
FPR2	2.1885934
FPR3	2.4330957
FPR-RS6	1.6926866
FRMD7	1.996829
FRMPD4	0.96017313
FRZB	0.65267324
FSCN1	1.5513806
FST	0.66314125
FUBP1	0.2642932
FUK	0.27088165
FURIN	0.29225063
FUT1	0.22646928
FYB	0.17010593
FZD1	0.7300792

FZD4	0.8477268
FZD9	0.38302588
G3BP1	0.3433938
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GAB3	1.0411029
GABRB1	0.45649266
GABRG2	0.80830073
GABRP	0.999835
GADD45B	2.3357725
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GALK2	0.3740058
GALNT11	0.79941463
GALNT12	0.8418255
GALNT18	0.45154238
GALNT5	0.25157905
GALNT6	0.46086788
GALNT7	0.23408985
GALNTL5	0.8073683
GAR1	0.4627161
GARS	0.28445148
GAS7	0.57047415
GAST	1.106466
GATA3	0.53840923
GATA4	1.460681
GBP10	1.1818476
GBP2	0.73166275
GBP3	0.7549586
GBP4	1.3674421
GBP5	2.6127887
GBP6	1.4949718
GBP7	0.75526476
GBP9	0.7511864
GBX1	1.3666704
GC	0.5214932
GCA	0.19509673
GCAT	0.681993
GCG	3.0153584
GCK	0.62459636
GCM1	0.9196849
GCNT2	1.0324917
GCSAM	0.6164479
GCSH	0.2194395
GDAP10	2.0893412
GDF15	3.4148464

GDF7	1.1121876
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GFI1	0.9153919
GFPT1	0.36287165
GFPT2	0.9099965
GFRA3	1.2837589
GGCT	0.62827444
GGNBP1	0.7297485
GGPS1	0.22297716
GGT1	2.9382112
GGT5	0.5160711
GGT7	0.7110281
GGTA1	0.72254467
GH	0.38226533
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GIMAP3	0.97073793
GIMAP4	0.9667411
GIMAP5	1.2346096
GIMAP6	0.8436508
GIMAP8	1.2024612
GIMAP9	0.7798052
GIPC3	0.963439
GIT2	0.4900527
GJA4	0.837461
GJA8	0.66732717
GJB1	0.7388735
GJC1	0.28977776
GJC2	1.8252931
GJD3	1.648987
GK5	0.2772379
GLA	0.4651432
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GLRX3	0.37213182
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GM101	2.04247
GM10153	3.0376186
GM10228	0.5914211
GM10252	0.22481918
GM10278	2.8767903
GM10286	0.64591146
GM10334	8.40825
GM10369	1.0113964
GM10389	0.9365792

GM10398	1.0896053
GM10403	1.029769
GM10433	1.0287435
GM10435	0.90954447
GM10436	0.8833504
GM10445	1.1241791
GM10461	1.0375133
GM10466	0.849622
GM10471	0.88504744
GM10510	1.2787752
GM10513	1.243825
GM10532	0.51041055
GM10556	0.83285236
GM10563	1.1643972
GM10579	1.0451822
GM10584	0.35534072
GM10589	1.0830638
GM10615	0.24018693
GM10631	0.41692543
GM10634	2.3836687
GM10640	0.23978305
GM10673	3.024167
GM10674	1.5065548
GM10696	1.8242819
GM1070	0.23431301
GM10700	1.0399783
GM10703	0.88644576
GM10741	0.7026768
GM10747	1.3937781
GM10777	0.556324
GM10789	0.9315803
GM10791	1.2639995
GM10792	0.9687829
GM10796	0.68206334
GM10814	0.6143875
GM10836	1.0925014
GM10839	3.8461192
GM10845	0.40313148
GM10847	0.8086896
GM10851	2.428845
GM10867	0.91906905
GM10869	0.2683246
GM10872	0.23233986
GM1110	0.8494501
GM11110	0.8647895

GM11123	0.42485523
GM11346	0.84443617
GM11437	0.9094901
GM11544	0.8161919
GM11696	0.45777035
GM11735	1.2419448
GM11747	0.67523766
GM11974	0.9210887
GM11992	1.2749405
GM12	1.1158149
GM12185	1.0452831
GM12250	1.4219441
GM12253	1.0388224
GM12302	0.827152
GM12503	0.8800416
GM12569	0.51784205
GM12592	1.3776913
GM12693	0.30954933
GM12758	0.25646138
GM128	0.819087
GM13011	10.15542
GM1305	0.89095926
GM13088	0.7467234
GM13238	0.72536993
GM13262	0.65201664
GM13271	0.24625087
GM13298	0.37848043
GM13375	0.99071026
GM13546	0.9036095
GM13889	3.1231751
GM13931	0.8653445
GM14005	1.5429788
GM14010	1.6558573
GM14015	1.3930626
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GM14321	1.6808939
GM14420	0.7853074
GM14446	1.3002577
GM14486	0.59215903
GM14496	1.3741314
GM14499	1.341789
GM14762	0.4242065

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GM15056	2.605391
GM15232	0.3218856
GM15340	1.011545
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GM15413	0.9219887
GM15421	0.41396666
GM15455	0.30335808
GM15478	0.62429
GM15628	0.63735294
GM15698	0.3894279
GM15762	1.4672682
GM15772	0.57300806
GM15821	0.94837356
GM15850	1.105464
GM15998	1.146297
GM16340	0.90192556
GM16390	0.8607733
GM16486	1.737524
GM16489	1.1667433
GM16491	0.4350369
GM16498	1.0014558
GM16505	1.9649873
GM16523	0.62023735
GM16524	0.46453738
GM16863	1.3715024
GM16982	1.59898
GM17244	0.9103894
GM17739	1.0723968
GM17753	0.8194964
GM17778	0.5775919
GM17821	1.2763395
GM1965	0.8966427
GM1966	0.7181401
GM1987	0.37803888
GM2016	0.5494089
GM20555	1.1189823
GM20558	2.491267
GM2061	0.5038171
GM20611	1.382273
GM20755	0.88513136
GM20767	0.53058624
GM20865	0.2858944
GM21944	3.9974418

GM21951	0.9587743
GM2366	1.7687438
GM2382	0.7591262
GM2447	0.99769545
GM2483	1.817992
GM2511	1.9727252
GM2545	2.0697203
GM2590	0.7560172
GM2675	1.0097218
GM2701	0.68071604
GM2824	0.48578334
GM3032	0.8591256
GM3081	1.229223
GM3086	0.6620414
GM3161	1.7538424
GM318	0.92835116
GM324	0.4603436
GM3367	1.0758927
GM3383	0.29384995
GM3428	2.4484222
GM3470	1.2008972
GM3556	1.4704099
GM3596	1.5344024
GM3696	0.85165095
GM3764	0.8780091
GM3881	0.61294293
GM3893	0.6300969
GM3907	1.1120646
GM3985	0.9263482
GM4013	0.3640504
GM4107	1.7072151
GM4146	0.85382056
GM4200	1.0628517
GM4221	0.61895657
GM4279	1.4910495
GM4354	0.99846935
GM4371	1.2036872
GM4419	0.9939201
GM4425	0.28559256
GM4432	2.6420083
GM4466	1.0176563
GM4524	1.050415
GM4544	0.35317564
GM4559	0.45501542
GM4567	1.1954618

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GM4745	0.9535551
GM4755	1.1593091
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GM4787	0.7480619
GM4832	0.40292883
GM4841	1.5126753
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GM4861	0.6737771
GM4884	0.6649842
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GM4951	0.98736143
GM4956	0.40384078
GM4971	0.76146984
GM4975	1.0326796
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GM5129	1.3073864
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GM5331	0.72646713
GM536	2.002653
GM5409	8.222702
GM5416	2.0414853
GM5431	1.1910133
GM5464	1.941602
GM5468	0.48428416
GM5483	2.5244212
GM553	0.9574151
GM5547	0.274518
GM5590	2.18567
GM5602	0.5532565
GM5608	1.4984767
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GM5771	9.869521
GM5833	0.6071031
GM5858	0.4142084
GM5878	1.2869172



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GM5916	1.0514755
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GM597	1.128747
GM614	1.6636312
GM6146	1.2023511
GM6219	0.20190454
GM6252	0.61189365
GM6287	1.1682332
GM6306	0.5184252
GM6377	3.0362554
GM6402	0.79921603
GM6403	1.3055394
GM6460	0.7364123
GM6524	0.21386385
GM6537	1.0625479
GM6566	1.013726
GM6712	0.60466313
GM6713	0.5339606
GM6756	0.3771119
GM684	0.95225024
GM6904	1.5046601
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GM7111	0.361068
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GM7609	0.95476055
GM7696	0.41172743
GM7849	1.0597432
GM7894	1.2617509
GM805	1.054893
GM8075	1.9080074
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GM8221	0.34014845
GM8273	0.47802734
GM831	0.43795395
GM8369	0.6398325
GM8493	0.75699687
GM8630	1.0590181
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GM8909	0.6373601
GM8995	1.1430211
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GM9564	1.5477557
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GM9706	2.325007
GM9725	0.9927454
GM9734	0.56743956
GM9752	0.8986182
GM9779	0.50168633
GM9839	0.29492426
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GM9878	2.0788531
GM9910	1.4755578
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GM9958	0.6811595
GM9961	1.0866332
GM9981	2.2634246
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GMCL1	0.2093153
GMDS	0.4694047
GMFG	0.38961458
GMPPB	0.20050335
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GNAI1	0.8681202
GNAI3	0.27142525
GNB3	1.3350627
GNG12	1.1089811
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GNGT1	0.8952031
GNGT2	0.30074406
GNL1	0.7583103
GNL3	0.24737692
GNMT	0.8245311
GNPNAT1	0.67672014
GNPTAB	0.44182587
GOLGA1	0.24034452
GOLGA3	0.39776325

GOLGA4	0.8006873
GON4L	0.19606781
GOPC	0.6136384
GORAB	0.26968765
GOT1	0.6107416
GP2	8.004887
GP49A	2.024219
GPANK1	0.25616455
GPATCH4	1.0597105
GPBAR1	0.435992
GPHN	0.6592717
GPM6B	0.68918514
GPN1	0.2789178
GPR110	1.8590674
GPR113	0.91751313
GPR114	0.5930095
GPR126	1.743887
GPR132	1.159051
GPR137B	1.2294612
GPR137B-PS	1.1077371
GPR151	0.90279794
GPR171	2.0642962
GPR179	1.8204007
GPR18	1.5104012
GPR183	1.2854056
GPR21	1.1629412
GPR26	0.6680093
GPR31B	1.7614882
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GPR55	1.7454267
GPR6	1.0661881
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GPR84	3.9447556
GPR85	4.0348873
GPRASP1	0.551291
GPRC5A	0.48263073
GPRIN2	0.56892085
GPSM1	0.31245375
GRAMD1A	1.2039905
GRAMD1B	0.30765152
GRAMD2	0.7245145
GRAMD3	1.3497
GRAP	0.374578

GRHL1	1.5680122
GRIK2	0.65978575
GRM6	1.6161463
GRM8	1.0925727
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GRWD1	0.36179447
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GTPBP6	0.4535761
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GUCY2F	2.1050682
GVIN1	0.7950492
GYK	1.5535793
GYS2	1.0958965
GZF1	0.22321558
GZMA	0.49520922
GZMB	1.849741
GZMC	2.5501878
GZMK	1.5701275
H1FOO	0.35535502
H2AFY3	0.21428776
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H2-EB2	0.6371145
H2-M11	1.2582316
H2-OB	0.30329704
H2-Q5	0.83951855
H2-T24	0.90058756
H60A	1.9802628
H60B	2.0946007
H6PD	0.2607355
HAAO	0.28569126
HABP2	2.1501496
HAMP	1.0961108
HAMP2	0.29553962
HAND1	1.4155266
HAP1	0.22153234
HAPLN3	0.47352982
HARS2	0.44486332
HAS1	2.1909738

HAS2	3.5379071
HAS2OS	1.921108
HBEGF	2.53479
HC	2.1360881
HCAR2	0.3411126
HCK	1.2153425
HCLS1	0.6952486
HCN3	1.0444121
HDAC9	0.7936392
HDC	2.231978
HDGFRP3	0.452502
HDX	1.8630612
HEATR1	0.6720681
HEATR3	0.67027044
HECTD2	0.96704817
HEG1	0.85707164
HELZ2	1.6662903
HEMT1	0.43263793
HEPHL1	0.8504071
HERC3	0.6685171
HERC4	0.2481494
HERC6	1.3402457
HERPUD1	0.38078642
HES2	0.44255805
HES3	0.86978364
HES5	1.5534897
HEXIM2	0.3086667
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HK2	0.76043844
HKDC1	1.6335363
HMCES	0.4835477
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HOXD3	1.1022875
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IGF2	1.3397238
IGF2BP2	0.23304248
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IGTP	0.9592142
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IL17A	4.235691
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IRG1	4.018429
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LHX6	0.56784296
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LRRC8E	0.5879705
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LTK	0.5876062
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MAP4K4	0.7238984
MAP7D2	1.3953817
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MED1	0.33406448
MED10	0.2902465
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RRAD	1.0524979
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RRBP1	0.26012135
RRNAD1	0.37885618
RRP12	0.5801625
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RRS1	0.7695837
RS1	1.400435
RS5-8S1	3.5988007
RSAD1	0.997803
RSAD2	0.81998396
RSG1	1.0878444
RSL1	0.7426009
RSLCAN18	0.35254622
RTBDN	0.5782969
RTDR1	0.65130544
RTP4	1.7671475
RUFY2	0.78381777
RUFY3	0.48268795
RUNDC1	0.35818768
RUNDC3B	2.0037508
RUNX3	0.45424914
RXFP1	0.6582446
RXFP2	1.0395896
RXFP3	0.67452574
RYBP	0.39386463
RYR3	1.6369071
S100A4	0.17922688
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S100PBP	0.39474058
S1PR1	0.22872972
S1PR2	0.39367437
S1PR3	0.4662633
SAA1	3.8346114
SAA2	6.7606974
SAA3	4.195894
SAA4	0.2892053
SAG	1.365694
SAMD4B	0.6204052
SAMD8	0.9310303
SAMD9L	0.9072528
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SAMSN1	1.5295138
SAMT4	1.1312013
SAP18	0.26271725
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SATB1	1.3931184
SAV1	0.5989008
SAYSD1	1.0936413
SBDS	0.6672301
SBNO2	0.93939734
SCAF8	0.20798588
SCD3	0.46453476
SCGB1B30	0.79029584
SCGB2B2	0.9699445
SCGN	0.94696975
SCHIP1	0.36197805
SCIMP	0.61655235
SCIN	1.1254554
SCML4	1.4041767
SCN11A	1.4346752
SCN3A	0.75200176
SCN3B	1.1425986
SCN4B	0.5924897
SCN5A	0.74988604
SCO2	0.37598085
SCRG1	0.47905326
SCRT1	1.9987218
SCX	0.37482882
SCYL2	0.3562131
SDAD1	1.6334591
SDC4	3.5028167
SDCBP2	0.24615693
SDR42E1	0.61666775
SEBOX	0.8134084
SEC1	0.7001674
SEC16A	0.33043623
SEC24A	0.5232351
SEC24B	0.47856045
SEC24C	0.28155518
SEC31A	0.2004013
SEC63	0.3775487
SECISBP2	0.3556695
SECISBP2L	0.865376
SEL1L	0.23208141
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SESTD1	0.23010421
SET	0.32551098
SETBP1	0.31889558
SETD2	0.1952982
SETD4	0.8333359
SETDB2	0.9776988
SEZ6L2	0.5956242
SF3B1	0.47066498
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SH3BP2	0.5838003
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SH3BP5	0.65163517
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SH3PXD2B	0.75931454
SHB	0.22855091
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SIK1	0.97158337
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SKAP2	0.5423322
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SLFN8	1.7003131
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SMAD7	1.0667577
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SMIM22	1.4696102
SMIM3	0.62444067
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SNX19	0.22755766
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SNX8	0.5466256
SOCS1	2.3679256
SOCS2	0.20260286
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SOD2	1.8772111
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SOSTDC1	0.8552153
SOWAHC	0.98603106
SOX5	1.4814205
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SP100	0.5371723

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SPATA1	0.3540802
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SPATA21	1.5821846
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SPATA5L1	1.3584335
SPATS2	0.7063203
SPCS2	0.36689663
SPDEF	1.5443966
SPDYA	0.53593874
SPDYB	0.9439826
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SPIC	1.6042042
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SPIN1	0.5937724
SPINK12	0.9078772
SPINK3	8.394373
SPINK4	1.3048742
SPINK6	0.8423848
SPNS1	0.20964003
SPOCD1	0.7296922
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SPPL2A	0.76049757
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SPRY2	1.2943351
SPSB1	0.787411
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SPTLC2	0.23405647
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SRGAP1	0.64755774
SRGN	0.30866385

SRP54A	0.43763542
SRPRB	0.31659317
SRY	1.74722
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SSH2	0.8149843
SSH3	0.6818576
SSPO	0.659369
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SSX9	0.89581823
SSXB10	0.24096584
ST13	0.5797415
ST3GAL1	0.27092457
ST6GALNAC2	1.5119858
ST6GALNAC4	0.5764866
STAC	0.965642
STAC3	1.0220447
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STAT1	1.0214672
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STAT3	1.005301
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STAT6	0.3228054
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STFA2	1.7673178
STFA2L1	1.4761219
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STIP1	0.28384018
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STK39	0.40804386
STK40	0.8055997
STMN3	0.9330113
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STRA6	2.072874
STRIP1	0.5739198
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STX11	0.25074244
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STX6	0.2817192
STX7	0.23012304
STXBP3A	0.46006584
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STXBP5L	1.06351
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SUCO	0.4158857
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SUSD2	0.5637469
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SYF2	0.5357399
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TAGAP	0.6665182
TAGLN	0.55763435
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TAOK1	0.6679287
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TBRG1	0.44704008
TBX10	0.5083895
TBX15	0.86949444
TBX21	0.9588051
TBX22	1.0832891
TBX3	1.4263334
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TCF7	0.88241386
TCFL5	0.855016
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TCP10B	1.9812121
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TDGF1	0.6805606
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TEAD2	0.21081066
TEAD4	0.67739487
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TERF2	0.3322959
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TESK1	0.619771
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TEX13	0.8219199
TEX19.2	1.6425116
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TFF2	8.051569
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THYN1	0.25545168
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TIMM10	0.43017578
TIMM9	0.2859664
TIMP1	2.8717203
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TKTL2	1.1054447
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TMEM184B	0.9914384
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TNFAIP3	3.3993626
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TNFAIP8L1	0.32443666
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TRAF2	0.491055
TRAF3	0.47019863
TRAF3IP2	0.34356356
TRAF3IP3	0.23311234
TRAF6	0.3756194
TRAFD1	0.6526408
TRAIIP	0.27420473
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TRAPPC3	0.47238445
TRAPPC4	0.20845842
TRAPPC8	0.27173543
TRAT1	0.6260636
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TRIM41	0.25213432
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TRIM56	0.72844124
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TRIM65	0.44441342
TRIM68	1.2021847
TRIM69	1.4408586
TRIP10	0.82314205
TRMT1	0.53849125
TRMT10A	0.25695252
TRMT2A	0.2561288
TRMT6	0.33665705
TRMT61A	0.6831322
TRNP1	1.5839815
TRP53I11	0.40674257
TRP53INP2	0.6737361
TRP53RK	0.19562817
TRP63	0.51197433
TRPA1	0.89750314
TRY4	10.361959
TRY5	10.187517
TSC22D3	1.0847745
TSEN54	0.27522564
TSGA13	1.9796567
TSKU	0.4824462
TSNAXIP1	1.1369419
TSPEAR	0.83187366
TSR1	0.5412717
TSR2	0.7601304
TSR3	0.36088276

TSTD1	1.178083
TSTD2	0.20539474
TSX	1.35396
TTC13	0.2493043
TTC14	0.2608366
TTC19	0.2767477
TTC30A1	0.30497313
TTC37	0.9531028
TTC39B	0.74762034
TTI2	0.21714497
TTL	0.53932047
TTLL3	1.0171871
TTLL4	0.3294282
TTLL7	0.77294636
TTLL8	0.8526764
TTLL9	0.38758254
TTPAL	0.5739498
TTR	1.6956773
TTYH1	0.8710282
TUBA1A	0.3510356
TUBB6	1.5336962
TULP4	0.81456375
TWIST2	0.66649246
TXK	1.327766
TXLNB	0.71582294
TXLNG	0.4434085
TXN1	0.23483467
TXNDC16	0.23263264
TXNDC8	0.63780046
TXNRD1	0.8839083
TXNRD3	0.37768698
TYK2	0.29271603
TYW5	0.78272724
UBA7	0.38578796
UBD	0.544034
UBE2D3	0.22500181
UBE2E1	0.35866308
UBE2E2	0.48245525
UBE2F	0.535275
UBE2J1	0.30886936
UBE2Q1	0.2629509
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UBE2W	0.33849764
UBFD1	0.32929134
UBN1	0.17523813

UBOX5	0.4818735
UBQLN1	0.86011267
UCHL3	1.2355652
UCKL1	0.26873922
UCP1	1.1210771
UFD1L	0.18024874
UFM1	0.24461365
UGGT1	0.40661716
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UGT8A	0.6098757
UNC45A	0.4389305
UNC79	1.2352858
UPP1	2.61094
URAD	1.0207827
URAH	1.194932
USH1G	0.37141657
USP16	0.6317196
USP17LC	0.32457328
USP17LE	1.7066586
USP18	2.787107
USP42	0.9329939
USP43	0.293113
USPL1	0.3556428
UTF1	0.5911679
UTP11L	0.5935254
UTP14A	0.5541792
UTP20	0.45359755
UTP6	0.45291948
UTRN	0.43622208
VAMP5	0.22088051
VAPA	0.27008915
VASH1	1.1927447
VASP	0.4667759
VAV1	0.8113737
VAX1	1.524631
VCPIP1	0.35449362
VDR	2.1908069
VGf	3.262848
VGLL4	0.4675088
VLDLR	0.58702755
VMN1R13	2.1572523
VMN1R151	1.1544158
VMN1R167	0.82591057
VMN1R197	1.7723374
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VMN1R59	1.0552759
VMN1R62	0.68275285
VMN1R87	1.0792558
VMN2R104	1.5557499
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VMN2R115	0.86032987
VMN2R13	1.064388
VMN2R3	0.3733139
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VMN2R88	0.7803569
VMN2R96	1.072691
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VMP1	1.1159692
VNN3	4.3201632
VPS16	0.19133425
VPS37A	0.6456995
VPS4B	0.2745328
VPS54	0.28662157
VSIG2	0.40814018
VSTM2B	0.8196373
VTI1B	0.73892355
VTN	4.2276893
VWA5A	0.4111085
VWA5B2	0.7853341
WARS	0.47028065
WARS2	0.5050802
WBP1L	0.18827057
WBSCR28	0.7300782
WDR1	0.93589115
WDR3	0.17410612
WDR34	0.5257964
WDR38	0.5061226
WDR43	0.33330488
WDR45B	0.6545863
WDR47	0.4804926
WDR52	0.69373703
WDR59	0.55509233
WDR78	1.5270755
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WFDC15A	1.3378515
WFDC17	2.1764169
WFDC18	2.8883815
WFDC5	0.90551805
WFDC6A	0.9071727
WFDC6B	1.2815738
WFS1	0.3958521
WHRN	1.5914421
WHSC1L1	0.35048628
WISP1	0.5607705
WNK3	1.1892185
WNT1	0.5014646
WNT11	0.49293876
WNT6	0.48694038
WNT9B	0.8888123
WSB1	0.21068525
WT1OS	0.59979105
WWC1	0.34693813
XAF1	0.41461945
XBP1	0.6192384
XCL1	0.30977297
XIAP	0.26028538
XKR8	1.4182844
XLR3B	0.80622005
XLR4A	0.6611085
XLR4B	0.69215107
XLR5B	0.8187103
XNTRPC	0.40538502
XRN2	0.18547344
YAE1D1	0.5478873
YAP1	0.41791344
YJEFN3	0.35608172
YRDC	0.3842969
YTHDC1	0.6016803
YTHDF2	0.24483109
YY1	0.36429453
ZAN	2.0030196
ZAP70	0.7234001
ZBED5	0.60496545
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ZBP1	1.4276052
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ZBTB26	0.8732896
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ZCCHC11	0.7710252
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ZDHHC18	0.7582636
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ZFAND5	0.2290926
ZFP1	1.4217095
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ZFP12	0.5113859
ZFP131	0.54218817
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ZFP239	0.2590711
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ZFP366	2.087771
ZFP36L1	0.6536398
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ZFP386	0.4621253
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ZFP46	0.65932655
ZFP462	0.47106886
ZFP51	0.40861416
ZFP513	0.6150656
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ZFP52	1.023344
ZFP523	0.2679472
ZFP53	2.0738049
ZFP560	0.30468678
ZFP566	0.37120247
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ZFP740	0.45243788
ZFP747	0.5388527
ZFP748	0.57112765
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ZFP790	1.2763739
ZFP809	0.49682808
ZFP811	3.5352287
ZFP82	0.53624296
ZFP831	0.21790957
ZFP839	0.99315476
ZFP84	0.468637
ZFP850	0.41566825
ZFP868	0.6180725
ZFP874A	0.3013482
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ZFP933	0.3906815
ZFP935	0.33854342
ZFP937	0.54798484
ZFP94	0.63321304
ZFP943	0.38233662
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ZFP955B	0.30514145
ZFP958	0.7947781
ZG16	5.9115214
ZHX2	1.33459
ZKSCAN2	0.95640755
ZKSCAN7	0.45607376
ZKSCAN8	0.36387444
ZMAT1	0.31842566
ZMIZ1	0.38500452
ZMYND11	0.45750284
ZMYND15	0.68609333
ZNFX1	0.84312344
ZNHIT6	0.54824305
ZNRF1	0.8381939
ZPBP	0.32259417
ZPBP2	0.43201494
ZPLD1	0.95263886
ZRANB2	0.39614582
ZSCAN18	1.3500628
ZSCAN22	0.41968703
ZSCAN4C	0.7210624

ZSWIM2	1.0316076
ZSWIM6	0.3272624
ZSWIM8	0.50638866
ZUFSP	1.3418746
ZXDA	1.3240619
ZXDB	0.6508689
ZXDC	0.4920361
ZYG11B	0.83986616
ZZZ3	0.25240564

**Mice\_late\_spleen\_DEgenes\_fc****Gene**            **log2 Fold Change**

AAMDC	-0.959487
AATK	-1.1795335
ABCA13	-0.8663774
ABCA3	-0.4408875
ABCA7	-0.7676163
ABCA8A	-2.3726096
ABCA9	-4.3069563
ABCB10	-2.5878873
ABCB4	-1.947712
ABCB6	-2.5275412
ABCB7	-0.8958309
ABCB9	-1.0254898
ABCC3	-1.265307
ABCG2	-1.668158
ABCG3	-2.1026359
ABCG4	-3.339304
ABHD1	-0.6020663
ABHD12	-0.3948851
ABHD14B	-1.2474966
ABHD16A	-0.7127037
ABHD17A	-0.9170342
ABHD4	-0.4889941
ABHD5	-0.3517737
ABHD8	-0.4246254
ABI3	-0.3876023
ABTB1	-1.2796688
ACAA2	-0.851471
ACAD11	-0.3437514
ACADL	-0.3299804
ACAP1	-0.8225737
ACAP3	-1.0450544
ACAT1	-0.362958
ACAT2	-0.3674634
ACAT3	-0.4123292
ACBD4	-0.8428474
ACBD6	-1.1151862
ACD	-0.7990685
ACE	-1.5344667
ACHE	-2.3286572
ACKR1	-3.014629
ACKR2	-0.711751
ACKR4	-3.063198
ACMSD	-4.1245155

ACOT11	-0.7048488
ACOT13	-0.7776275
ACOT6	-0.871203
ACOT8	-0.4750714
ACP1	-1.2716031
ACRBP	-0.5910473
ACSL1	-0.5392094
ACSL6	-1.5493672
ACSS1	-1.2413802
ACSS2	-1.2927206
ACTA2	-0.6357961
ACTL11	-1.1834106
ACTL6A	-0.7002654
ACTR3B	-0.6527035
ACVRL1	-1.4718704
ACYP1	-0.7237701
ADAM10	-0.9380894
ADAM22	-1.4904299
ADAM26A	-0.569732
ADAM26B	-2.6157777
ADAM33	-1.0842116
ADAM6B	-0.7263827
ADAMDEC1	-0.4440551
ADAMTS13	-0.9327958
ADAMTS16	-1.4392741
ADAMTSL1	-1.1385496
ADAMTSL5	-0.8226295
ADCK3	-0.7250359
ADCY1	-4.050106
ADCY5	-1.3072209
ADCY6	-0.9594426
ADCY7	-0.5918665
ADD1	-1.2843075
ADD2	-3.3903766
ADD3	-0.8025408
ADH1	-1.1320901
ADIG	-1.1747761
ADIPOQ	-3.91424
ADIPOR1	-0.5832
ADPGK	-0.6837025
ADRB1	-0.7982235
ADRBK1	-0.5366082
ADSSL1	-0.9068437
AFMID	-1.2775822
AGAP1	-0.6919642

AGAP2	-0.5733433
AGBL1	-2.6472647
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AGFG2	-1.71189
AGMAT	-1.4057283
AGMO	-2.479797
AGO1	-0.5702064
AGO2	-1.3524461
AGPAT4	-0.8288093
AGTPBP1	-0.6307247
AHCTF1	-0.4136424
AHDC1	-1.1023777
AHI1	-0.8110199
AHNAK2	-1.1605628
AHRR	-1.1052563
AHSP	-2.6498618
AIF1	-1.0855689
AIF1L	-0.5498357
AJUBA	-0.9150784
AK1	-1.1111374
AK3	-0.8718395
AK8	-2.6419537
AKAP17B	-0.8554101
AKAP5	-1.4249341
AKAP7	-0.9642477
AKAP8L	-0.7778282
AKIP1	-1.3414173
AKR1B10	-0.9975729
AKR1B7	-1.8801217
AKR1C6	-2.5816336
AKR7A5	-0.8072953
AL118220	-0.5980034
ALAD	-3.2587461
ALAS2	-1.1776681
ALDH18A1	-0.4108987
ALDH1A1	-1.5851316
ALDH1A7	-3.4934924
ALDH2	-0.5776038
ALDH3B2	-2.7959552
ALDH4A1	-0.8117223
ALDOC	-1.3074279
ALG13	-0.3150144
ALG2	-0.3766894
ALKBH7	-0.6723485
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ALMS1	-1.1620741
ALOX12	-1.2448087
ALOX12E	-1.3992743
ALOX15	-2.2552054
ALOX5	-1.4655704
ALOX5AP	-0.6313667
ALS2CR12	-1.3175373
ALYREF	-0.7521129
AMD2	-0.635922
AMMECR1	-1.3506641
AMPD3	-1.5309591
AMZ1	-1.507544
AMZ2	-0.4351339
ANAPC13	-0.4870815
ANAPC15	-0.4019294
ANAPC5	-0.8522277
ANGPTL2	-2.1024473
ANGPTL6	-0.4810224
ANGPTL7	-3.0931919
ANK	-1.8283486
ANK1	-2.4412398
ANK3	-1.1731873
ANKEF1	-0.6674271
ANKLE1	-3.1750202
ANKMY2	-0.6058683
ANKRD13D	-0.6382031
ANKRD2	-1.5566647
ANKRD22	-0.5567668
ANKRD26	-0.5196369
ANKRD35	-1.4755766
ANKRD50	-0.4386146
ANKRD54	-1.3447027
ANKRD9	-1.6104369
ANKS1B	-0.5188181
ANLN	-1.5578742
ANO1	-1.1765273
ANO10	-0.302012
ANXA9	-0.5629473
AOC1	-1.9579473
AOX1	-0.80532
AP1B1	-0.7967153
AP2A1	-1.2589474
AP2A2	-1.0991306
AP4M1	-1.033819
AP5M1	-0.3749919



APBA1	-0.6877852
APBB1	-0.7166758
APBB1IP	-0.4336114
APC2	-0.8587596
APCDD1	-0.9737067
APEH	-1.5092063
APH1B	-0.697926
APIP	-0.506825
APLF	-1.427372
APLNR	-3.3729587
APLP2	-0.4392824
APOA1BP	-0.6054626
APOA4	-1.5919178
APOBR	-0.6729093
APOC1	-0.7810936
APOF	-0.9177113
APOL10A	-3.6933565
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APOL11B	-2.2986403
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APOL8	-2.4173145
APOO	-0.5241971
AQP1	-2.4059849
AQP11	-1.4012835
AQP2	-2.1740236
AQP9	-1.5917933
ARF5	-1.0785398
ARG1	-0.7696688
ARHGAP18	-1.552094
ARHGAP19	-1.549079
ARHGAP23	-1.307756
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ARHGAP39	-1.2568922
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ARHGDIB	-0.3769755
ARHGEF1	-0.6241536
ARHGEF10L	-0.4574781
ARHGEF39	-2.0073638
ARHGEF4	-0.9331684
ARHGEF40	-1.3254485
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ARID4A	-0.6078811
ARL11	-1.6852555

ARL4A	-1.0086207
ARL4D	-0.5971565
ARL6IP1	-0.6207876
ARMC1	-0.4189134
ARMC2	-1.1543798
ARMC4	-0.6325345
ARMC6	-0.570189
ARMC7	-0.5415525
ARMC9	-1.821157
ARPC1A	-0.4249587
ARRB1	-1.7636971
ARRDC2	-1.374682
ARSB	-1.1903028
ARSI	-1.2135613
ARSK	-1.0571094
ART2B	-1.5565264
ART3	-0.8884149
ART4	-1.9708009
ARTN	-2.7042713
ARVCF	-1.6930308
AS3MT	-0.7690818
ASAP1	-1.2689681
ASB1	-1.6693254
ASB16	-0.9992621
ASB17	-3.5936913
ASB2	-1.055028
ASB6	-0.5435877
ASCC1	-0.6632149
ASF1A	-0.9304767
ASF1B	-1.971931
ASGR2	-1.2586367
ASIC1	-1.4928801
ASNSD1	-0.3549328
ASPA	-1.2489364
ASPH	-0.8835907
ASPM	-1.811408
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ATG2A	-0.3750453
ATG4B	-1.2023563
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ATOH8	-1.0916345
ATP1A2	-1.9444509
ATP1A3	-1.0003247
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ATP2A3	-1.3030357
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ATP6V0D2	-1.5575156
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ATPAF2	-0.4736924
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B3GAT3	-0.5607429
B3GNT5	-0.6388564
B3GNT8	-2.502049
B4GALNT1	-0.4977636
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B4GALT4	-1.0678527
B9D1	-0.4440217
BAD	-0.4769177
BAG1	-0.5360012
BAG2	-1.9198682
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BAI2	-1.8095942
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BAZ1B	-0.5636973
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BBS9	-1.1850753
BCAM	-1.1421509
BCAS3	-0.6507173
BCKDK	-0.8888578
BCL2L1	-0.5729384
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BCL7A	-0.7547171
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BCO2	-0.758781
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BCORL1	-1.639972
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BEX4	-2.3694844
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BFSP2	-1.2241783
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BIN1	-0.3144984
BIN2	-0.5339055
BIRC5	-2.0112796
BLK	-0.6560526
BLM	-1.9113641
BLOC1S1	-0.453825
BLOC1S5	-1.1655097
BLVRA	-0.989892
BLVRB	-2.0573177
BMP4	-1.1828175
BMP6	-0.6490398
BMX	-1.0520179
BMYC	-0.3377461
BNC1	-1.3554425
BNC2	-1.1690714
BNIP3L	-0.818234
BOK	-0.7572575
BOLA1	-1.2475688
BOLA3	-1.1245971
BORA	-0.9116743
BPGM	-0.4510827
BPHL	-1.1565509
BPIFA6	-0.491178
BRCA1	-1.7640951
BRCA2	-2.0170002
BRD3	-0.4716711
BRDT	-0.8983483
BRF2	-0.4306202
BRIP1	-0.7088096
BRPF3	-1.538876
BSCL2	-0.7222924
BSDC1	-0.7032266

BSG	-1.3363853
BTBD2	-1.0354137
BTBD6	-0.6761622
BTD	-0.6273212
BTG2	-0.9493375
BTNL1	-0.5974162
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BTNL2	-0.797976
BTRC	-1.1329076
BUB1	-1.629427
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BVES	-1.0893896
BZRAP1	-0.867347
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C1QTNF2	-2.4395106
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C1QTNF5	-1.1774447
C1QTNF7	-1.3950038
C2CD2	-0.430649
C2CD2L	-0.8409076
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C2CD5	-0.7861886
C3AR1	-0.7847474
C5AR2	-1.4544737
C6	-1.434247
C8G	-0.8840294
CAAP1	-0.3916211
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CACHD1	-2.0102046
CACNA1G	-4.4357405
CACNA1I	-1.6834376
CACNA2D2	-0.5381486
CACNB1	-0.3208134
CACNG1	-0.6324673
CACTIN	-0.9695172
CADM1	-1.2953472
CADM4	-0.7037015
CALHM2	-0.5195227
CALM2	-0.5219808
CALM3	-0.5590105
CALML4	-1.4474881
CALR4	-1.5471649
CAMK1	-0.8468106

CAMK1D	-0.6773586
CAMK1G	-1.0537066
CAMKK2	-0.4968081
CAMP	-2.7459354
CAMSAP2	-1.1791229
CAND2	-0.3744402
CAP2	-1.5975785
CAPN1	-0.8578286
CAPN10	-0.5520587
CAPN3	-2.4247804
CAPN5	-1.101079
CAPRIN2	-1.0813613
CAPSL	-0.7171044
CAR1	-2.0301914
CAR2	-2.0830703
CAR3	-3.888627
CAR6	-0.7027354
CAR7	-0.9266586
CARD11	-0.7070675
CARD9	-1.465862
CARHSP1	-1.418055
CARM1	-0.4680657
CARS2	-0.6454516
CASC5	-1.880286
CASP14	-0.8735638
CASP3	-0.5348868
CASP6	-0.7494168
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CASQ2	-2.2483711
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CAT	-1.1805663
CAV1	-1.822046
CAV2	-1.0291464
CBFA2T3	-1.5682392
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CBR2	-2.120467
CBX2	-0.8249652
CBX3	-0.7080054
CBX5	-1.3150563
CBX6	-1.1101966
CBY1	-1.6389828
CCDC103	-2.3983572
CCDC112	-0.3274484
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CCHCR1	-1.678637
CCL24	-3.1804965
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CCNA2	-2.4742827
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CCNB2	-2.14392
CCND1	-0.9427037
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CCNDBP1	-0.6558695
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CCPG1	-0.3400326
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CCR3	-3.5069168
CCR6	-0.8312182
CCRN4L	-0.5129795
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CD160	-2.4390664
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CD180	-1.2222908
CD200R4	-3.4605894
CD207	-3.0534375
CD209A	-3.9071379
CD209B	-1.534641
CD209D	-0.5878866
CD209F	-2.4194372
CD209G	-0.9156172
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CD24A	-1.9117718
CD300C	-1.3457396
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CD59A	-1.0823383
CD5L	-0.5516295
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CD79A	-1.0810156
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CDC123	-0.5244012
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CDC25C	-1.7124643
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CDC42BPA	-0.8014739
CDC42EP3	-1.394949
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CDCA2	-2.2405798
CDCA3	-1.4232545
CDCA4	-0.9850912
CDCA5	-1.3245373
CDCA8	-1.734972
CDH18	-0.9338045
CDK1	-1.252805
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CDK19	-0.7840543
CDK2	-0.9675107
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CDK5RAP2	-1.4241009
CDKL1	-0.9916158
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CDPF1	-0.6809158
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CEACAM10	-0.873945
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CEBPE	-1.7820606
CECR2	-1.7909546
CECR5	-1.1018941
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CERCAM	-2.488683
CERKL	-0.9053857
CES1D	-2.404948
CES2G	-2.7909498
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CGRRF1	-0.5189867
CHAC2	-1.293951
CHAF1A	-1.4475245
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CHD8	-0.5942178
CHEK2	-1.6254606
CHIL3	-0.6862402
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CIAPIN1	-0.3879466
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CIITA	-3.575666
CILP	-1.9306936
CILP2	-1.70892
CIT	-2.778648
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CKAP2L	-1.5867503
CKAP5	-0.7561903
CKB	-1.7684267
CKM	-2.19226
CKS1B	-0.6774654
CKS2	-1.4664044
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CLDN13	-3.4947448
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CLEC11A	-1.0565178
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CLK3	-0.669435
CLMN	-1.2149904
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CLYBL	-1.8307002
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CMBL	-3.8730032
CMC2	-1.0656133
CML5	-1.7389851
CMTM5	-0.6223712
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CMTM8	-0.9103539
CNN1	-2.9569845
CNN2	-0.533102
CNNM1	-2.9759965
CNNM2	-1.9189515
CNOT10	-0.5431294
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CNPY4	-0.7368317
CNR1	-1.2189674
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CNTF	-0.5630128
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CNTN1	-0.7127726
CNTN2	-0.4992032
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COA3	-0.7074304
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COBL	-0.5287206
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COL14A1	-2.5773685
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COL26A1	-2.5316007
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COL5A1	-1.4760485
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COMT	-1.1487355
COPS2	-0.4670234
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COX19	-0.558332
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COX7A1	-0.6597881
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CPT1C	-1.3251717
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CPZ	-1.4509826
CR2	-1.3124251
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CREBZF	-0.41749
CREG1	-0.9570322
CRHR1	-1.426925
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CRIP3	-0.8056099
CRISP3	-3.4122505
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CRNKL1	-0.3120515
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CRXOS	-1.1701262
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CSRP2	-0.7266913
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CTC1	-0.5061526
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CTSE	-2.3320088
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CTTNBP2	-1.4026358
CTXN1	-0.7837367
CUEDC1	-0.8373458
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CUX1	-0.6750641
CX3CR1	-3.1579487
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CXXC1	-0.467876
CXXC5	-1.4235468
CYB561A3	-1.0373259
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CYTL1	-1.1502442
DAAM1	-1.1697221
DAAM2	-0.7202289
DACT1	-1.0275197
DAGLB	-1.112134
DAK	-0.7442956
DAND5	-1.2463462
DAP	-0.6522164
DAP3	-0.3852115
DAPK2	-1.6832848
DARS2	-1.4426675
DBF4	-1.2327967
DBNDD1	-0.7238865
DBP	-1.3108401
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DCAF4	-0.5675163
DCAF6	-1.0091944
DCHS1	-0.8638694
DCK	-0.7854292
DCLK1	-0.6776633
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DDX11	-0.5142043
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DEAF1	-0.788085
DEF8	-0.7832007
DEFA1	-0.7474861
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DENND1C	-0.4345169
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DET1	-0.3359132
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DGCR6	-0.3297482
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DGKI	-1.2359669
DHCR24	-1.7805057
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DHRS1	-0.7665529
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DHRS3	-0.3596063
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DIAP3	-1.3071723
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DMRTB1	-0.6150446
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DNA2	-1.2200513
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DNAH8	-0.7118273
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DNAJB1	-0.9666166
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DOLPP1	-0.6865106
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DPPA2	-1.2815757
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DPY19L1	-0.9592238
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DSC2	-0.9319928
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DTX3	-0.6187244
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DYNLL1	-0.7319851
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EAR2	-1.0314445
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EAR7	-1.314434
ECH1	-1.08077
ECHDC3	-0.9083371
ECI1	-0.595551
ECT2	-1.261908
EDARADD	-0.404856
EDC3	-0.6328037
EDRF1	-0.3174436
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EEF1D	-0.3731618
EEF2K	-1.3473337
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EFEMP1	-1.5108969
EFHD1	-2.1981897
EFNB1	-1.3364668
EFNB3	-2.2825418
EHBP1L1	-1.2179375
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EIF4EBP2	-0.3780584
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ELK3	-0.4463158
ELMO3	-0.8061349
ELN	-3.0506957
ELOVL6	-0.5157404

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EMID1	-1.5698586
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IGFBP2	-2.1259012
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IGLL1	-2.8434312
IGSF10	-1.3404562
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IKZF3	-0.5173945
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IL1RL1	-1.4056449
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LIG1	-1.7773614
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SHANK2	-0.4503341
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SHROOM3	-0.7136686
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SUCNR1	-1.0802221
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WAS	-0.4186764
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CNGA4	1.2430167
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CNKSR3	2.717967
CNN3	1.232193
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CNTNAP3	1.3462152
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COX8C	1.0062835
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CRTAP	0.32921124
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CRYAA	1.6971607
CRYBA1	1.0591877
CRYBA2	1.6333218
CRYBB2	1.1716051
CRYBB3	2.161953
CSF1	0.64739084
CSF2	3.3582351
CSF2RB	1.3804584
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CSF3	7.7814903
CSMD2	1.0818691
CSNK1E	0.4096694
CSPRS	0.6565933
CSRNP1	2.093122
CST10	1.3165917
CST7	1.1149683
CSTB	1.3973742
CSTF2T	0.54972696
CTGF	1.6563153
CTH	2.1309936
CTLA2A	1.7701626
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CTRB1	10.186724
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CTSK	0.41522646
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CTSS	0.48602057
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CTTNBP2NL	1.9781923
CTXN2	0.94338703
CUBN	0.82473207
CUL9	0.43715
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CX3CL1	3.5762076
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CXCL3	7.1417766
CXCL5	4.157993
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CXCR5	1.0957842
CYB561	1.9130921
CYB5B	0.5359216
CYB5R2	1.85516
CYBA	0.41216755
CYBB	1.2095761
CYFIP1	1.3997841
CYGB	0.71913576
CYLC2	1.5472529
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CYYR1	2.3409956
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DENND3	0.48757744
DENND5A	0.463789
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DMRTA1	1.17151
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DNAJB5	0.66640997
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DPY19L3	0.67959785
DPYS	0.9881394
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DRAP1	0.365417
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DUPD1	1.331847
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DUXBL1	1.3133361
DYNC1I1	1.347681
DYRK2	0.9069729
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EAPP	0.40925598
EBI3	1.1673627
EBNA1BP2	0.7678633
ECE2	1.1985536
ECHDC2	0.89834046
ECHS1	0.36285305
ECSCR	0.98570204
EDEM2	0.5493188
EDN1	4.6177106
EDNRA	1.1334538
EDNRB	0.8620024
EEA1	0.8741045
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EEF1E1	0.4081049
EEPD1	0.6481843
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EFHB	0.7947626
EFHD2	0.933331
EFNA1	0.8041768
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EFNB2	0.3624158
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EHMT1	0.8045025
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EIF4A2	0.5115404
EIF4EBP1	0.54106426
ELAC2	0.47771835
ELAVL4	0.48691225
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ELMO1	0.9285054
ELOVL4	3.0620239
ELOVL5	0.52794695
ELP5	0.3676777
EMB	1.1124082
EMC1	0.3599701
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EMCN	0.37127018
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EMR1	0.45678568
ENAH	0.65090966
ENC1	2.1021223
ENDOG	0.3005023
ENO2	2.2393708
ENPP2	1.1760125
ENTPD1	0.7664082
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EPHB2	0.57713795
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EPN2	1.067092
EPPK1	2.7178235
EPRS	1.1531067
EPSTI1	0.5546894
EQTN	1.7075677
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ERBB2IP	0.40000343
ERCC1	0.4766326
ERCC2	0.37275696
ERDR1	0.5083561
EREG	3.4224472
ERGIC1	1.0480046
ERICH2	1.2390783
ERLIN1	0.37034464
ERLIN2	0.41198015
ERP27	1.3188405
ERP44	0.44391203
ERRFI1	4.3135705
ESRP1	1.444505
ESRP2	4.386984
ESRRB	0.46876597
ETNK2	1.1600811
ETS2	1.3256054
ETV3	1.5154271
ETV6	1.3176885
EVA1B	0.813189
EVA1C	2.1780539
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EXOC2	0.47409868
EXOC3L4	0.55542135
EXOC6B	0.7431202
EXTL1	0.32877994
EXTL2	0.5708399
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FBXO22	0.5447326
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FBXO43	1.3654306
FBXO6	0.5968585
FBXW13	1.6411114
FBXW18	1.373178
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FCGR2B	0.8970938
FCGR4	2.0701966
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FER1L6	0.98924136
FERD3L	0.8186393
FERMT2	0.9281559
FETUB	1.4042969
FEZ2	0.48746443
FFAR2	0.76566076
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FGF21	1.6749434
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FKBP5	2.0053754
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FLOT1	0.6653094
FLRT3	1.1276848
FLT3	0.9881029
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FMO1	0.9901633
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FOSB	1.4070814
FOSL1	3.1402082
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FOXC1	1.757549
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FOXF1	1.560463
FOXI3	1.0867698
FOXK1	0.55549955
FOXN2	0.50827265
FOXP1	0.56917953
FOXP3	1.1868682
FOXRED2	0.694191
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FPR2	2.2657938
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FRZB	0.7167764
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FYTD1	1.2779558
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GAK	0.3910179
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GALNT15	1.0245099
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GAPDHS	0.52292347
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GAS8	0.6061964
GATA2	0.4581952
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GATSL2	0.9025364
GBE1	0.92195606
GBP10	1.3849039
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GCNT2	0.6729183
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GFPT2	1.2778909
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GJB1	1.3997741
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GM5168	0.70771337
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GM5416	1.8321238
GM5420	1.3237753
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GM5441	0.4701755
GM5458	1.303298
GM5476	1.2586184
GM5483	2.724154
GM5486	0.7041905
GM553	1.3043056
GM5533	0.30167818
GM5549	0.93016195
GM5602	0.8343196
GM5771	13.04335
GM5795	1.1808007
GM5796	0.80710816
GM5797	0.9823413
GM5862	0.7491152
GM590	1.9546316
GM5908	0.8332653
GM5932	0.86072755
GM597	1.5391693
GM614	1.2738585
GM6145	1.350555
GM6211	0.6227231
GM6252	0.825696
GM626	0.61516476
GM6280	0.4212048
GM6360	1.1385345

GM6370	0.9005816
GM6377	2.4788551
GM6402	0.87933016
GM6403	3.1398408
GM6460	1.0133755
GM6498	0.6367302
GM6524	0.39192486
GM6537	0.80433536
GM6579	0.79963255
GM6583	0.7662811
GM6602	1.681962
GM6658	0.8186023
GM6744	1.2587638
GM6756	0.9134064
GM6818	1.4816253
GM6846	2.072617
GM6904	1.2672575
GM6927	1.4137833
GM6943	0.97592926
GM6981	0.4471779
GM7133	1.5478683
GM7134	1.3919556
GM7157	1.0451496
GM7160	1.3965459
GM7609	0.607636
GM7694	0.86139894
GM7827	0.73307514
GM7967	0.4645934
GM8075	1.6911187
GM8096	1.0482163
GM8350	0.7180886
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GM8672	0.9387772
GM8709	0.46574163
GM8884	2.0351477
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GM9706	1.4999223
GM9757	0.73328686
GM9777	0.93995786
GM9802	1.0705543
GM9860	1.5735917

GM9866	1.19028
GM9873	0.8223264
GM9910	0.83937216
GM9917	0.54890394
GM9948	1.062067
GM9973	1.3890088
GMDS	0.6253214
GMPPB	0.40861416
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GNAL	1.5021529
GNAT2	0.49702168
GNB1	0.3838892
GNB4	0.3984499
GNG12	1.8649702
GNG5	0.55924225
GNGT1	0.91595125
GNL1	0.94753885
GNL3	0.54084873
GNMT	1.5448749
GNPNAT1	0.99935627
GNRHR	0.84485793
GNS	1.3454599
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GOLGA5	0.54935503
GOLGB1	0.5140691
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GOT1	1.4673653
GP2	10.148325
GP49A	1.7968245
GPAT2	0.5530503
GPD2	0.7546153
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GPR113	1.2904408
GPR115	1.3114462
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GPR123	0.9901631
GPR126	1.7252259
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GPR161	1.1121426
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GPR176	1.1664486
GPR179	2.4819763
GPR18	1.5681701
GPR183	1.0758638
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GPR4	0.73641753
GPR55	2.0847943
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GPR75	1.2273393
GPR84	2.4197607
GPR85	5.2755046
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GRAMD1B	0.58582354
GRAMD3	2.079832
GRAMD4	0.5106039
GRB2	0.57078505
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GREB1L	1.3199167
GREM2	0.56259155
GRHL1	1.0654368
GRHL2	1.8953736
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GSDMD	0.5230546



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GTPBP6	0.5417571
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GUCY2F	1.6489131
GXYLT2	0.5917144
GYK	0.87709284
GYLTL1B	0.49842358
GYS1	0.52698135
GZF1	0.53131914
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GZME	1.7682388
H13	0.5032916
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H2-T3	0.55262494
H60A	1.8971076
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HABP2	4.311308
HAMP	4.1350107
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HAS1	2.7744286
HAS2	1.5224702
HAX1	0.61836004
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HC	1.4255233
HCAR2	0.8779421
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HCLS1	1.152381
HCN2	0.8993573
HCN3	1.463331
HCRT	1.1011717
HDAC9	1.0563159
HDC	1.2204375
HDGFRP3	0.8621321
HEATR1	1.0508308
HECA	0.4104824

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HECW2	0.7292676
HEG1	1.6285226
HELZ2	1.396668
HENMT1	1.1432726
HEPACAM	0.822896
HERC3	0.8072381
HERC6	0.93270826
HERPUD1	0.576561
HES7	0.32206535
HGSNAT	0.40004587
HHAT	0.57342863
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HIC1	0.9717469
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HIVEP1	0.55306864
HIVEP2	0.9815731
HK2	2.0243134
HKDC1	3.4509513
HMGA1	0.5386925
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HMX1	1.2664044
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HRCT1	1.11677
HRH1	0.8564997
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HS3ST2	0.8535638
HSBP1	0.86236
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HSPE1	0.8938842
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HYI	0.612669
IAPP	2.916943
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IDO2	3.3706443
IER3	4.3388844
IER5L	0.83817434
IFI202B	1.7391992
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IFNG	4.009959
IFNGR2	0.6087408
IFRD1	1.697937
IFT122	0.42746544
IFT43	0.7465086
IFT88	0.8255844
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IGF2BP2	0.7005234
IGFBP1	6.427035
IGFBP7	0.89832354
IGH-VJ558	0.51978254
IGJ	0.5541682
IGKV4-55	1.5600166
IGSF11	1.2580156
IGSF23	2.5721772
IGSF5	2.5396228
IGSF6	1.13131
IGSF8	0.93131065
IGSF9	0.4949727
IGTP	0.6541014
IIGP1	1.5848422
IKBKAP	0.5762043
IKBKE	2.0756903
IKZF4	1.5022497
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IL11	1.1510792
IL12B	4.1975393
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IL12RB2	0.814132
IL15	0.4632604
IL15RA	1.4526
IL17A	5.5665903
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IL21R	1.1100049
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IL23A	2.4010181
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IL2RA	3.4102883
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IL33	1.9088702
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IL4RA	0.96510315
IL6	8.340477
IL7R	1.56179
ILD1R1	1.2502697
IMMP2L	0.49897647
IMP4	0.5684757
IMPDH1	1.3769374
INADL	1.2359953
INHBA	0.73502016
INHBB	4.4229445
INS1	3.61729
INS2	1.37396
INSIG2	0.33561325
INSL6	1.2054315
INSR	0.9182136
IPO4	0.9584632
IPPK	0.44065523
IQCF1	0.5159414
IQCF3	0.99037385
IQGAP1	0.35570478
IRAK3	2.3977914
IRF1	0.9047971
IRF2BP2	0.52545595
IRF4	1.0648947
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IRG1	4.658892

IRGM1	0.7555556
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ISYNA1	0.30644083
ITGA1	0.9072714
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ITGA9	1.0920768
ITGAL	1.0471053
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ITGAV	1.1375875
ITGB4	1.1001859
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ITK	1.5664563
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ITPR3	0.46591663
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JAM2	1.1743274
JDP2	1.3760042
JUN	2.1858373
JUNB	1.6592565
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KCNA6	0.4937694
KCNC3	1.1466272
KCNE3	1.3104143
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KHNYN	0.42004395
KHSRP	0.36546707
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KLHL15	1.0725269
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KLK1	5.973609
KLK12	0.7939272
KLK1B11	6.1765513
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KLRA2	2.3170137
KLRB1-PS1	1.0793309
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KRTAP11-1	2.4606469
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LAMC1	0.8236742
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LARP1	0.8020911
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LDHA	0.82344437
LDHD	2.7786632
LECT2	1.0050747
LEF1	0.7771144
LEKR1	0.3857813
LENG9	0.43467808
LEPR	0.97858477
LEPRE1	0.47561908
LETM1	0.39948702
LGALS3BP	0.89455986
LGALS8	1.015872
LGI2	1.165112
LGMN	0.9211159
LGR4	2.212959
LHX1OS	0.85769844
LIF	3.0903137
LIG3	0.6296129
LILRA6	0.43505192
LILRB4	1.7657337
LIN28B	0.60985994
LIN52	0.50442123
LIN7C	0.85338736
LINS	0.52413845
LIPG	3.7116213

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LIPT2	1.345505
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LMAN1	0.44909573
LMBRD2	0.71766067
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LMX1B	0.7502425
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LNX1	1.2132838
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LRCH1	0.79586744
LRFN3	0.5026102
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LRP10	0.3370924
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LRR16A	0.7715843
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LY6K	2.456479
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LY86	0.6294899
LY96	0.9905801
LYN	0.7373142
LYPD5	1.4307861
LYPLA2	0.4515338
LYRM1	1.0765569
LYRM7	1.5233624
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LYVE1	5.8772573
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MALSU1	0.6510658
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MAN2A1	0.8550639
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MANF	0.548337
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MAOB	1.9139633
MAP1B	0.6612222
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MAP4	0.6811037
MAP4K3	0.41410208
MAP4K4	1.0481977
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MAPK12	0.9342098
MAPK6	0.7714119
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MAPRE2	0.43435
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MARCKSL1	1.7514362
MARCO	2.9514918
MARK1	1.6784344
MARK4	0.7177391
MARVELD3	2.1804857
MAS1	0.6366708
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MATN1	2.3351865
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MBNL2	0.43717575
MBTD1	0.31660128
MBTPS2	0.69594383
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MCMBP	0.40618563
MCTS1	0.5526552
MDFIC	1.4222264
MDGA1	1.0860238
MDN1	1.2129555
ME3	1.5294824
MEA1	0.41056204
MED11	0.54827166
MED28	0.35313797
MEF2A	1.171627
MEFV	2.107893
MEGF11	0.49297047
MEIG1	0.8434849
MEIS2	0.33135033
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PTPN22	1.886601
PTPN23	0.6605358
PTPN5	0.5832877
PTPRK	0.72187686
PTPRM	1.2718668
PTPRN	1.2621777
PTRH1	1.1120114
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PTX3	6.8272185
PUS7	1.0168381
PUS7L	0.935307
PVALB	1.9028728
PVR	2.4597635
PVRL2	0.89317083
PVT1	0.5821481
PWP1	1.064795
PWP2	0.8208413
PYDC3	2.377266
PYDC4	2.6992168
PYHIN1	0.7487378
PZP	3.6147332
QPRT	0.3811679
QSOX1	0.6240659
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RAB11FIP1	1.119899
RAB11FIP5	0.7470927
RAB12	0.64742565
RAB15	0.9620557
RAB20	2.3292074
RAB25	2.1044796
RAB26	1.9378207
RAB2A	0.31566

RAB2B	0.6867566
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RAB33A	0.75088143
RAB34	0.53404903
RAB3IP	0.46789694
RAB4B	0.7325282
RAB9B	1.2422681
RABEPK	0.5690398
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RAD23B	0.67858887
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RAET1B	1.1363282
RAET1C	1.4170601
RAET1E	1.1714883
RAI14	1.2184491
RALA	0.6323023
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RARRES2	1.4534912
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RASA4	1.1242571
RASAL2	0.53934073
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RBFOX2	0.90900564
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RBM22	0.46239018
RBM25	0.33912992

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RBM27	0.6224828
RBM28	1.0091505
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RBM47	0.568346
RBMS1	1.1784163
RBMS2	0.6889186
RBMX	0.41754675
RBP1	0.76360655
RBPJL	1.0739872
RCC2	0.7881565
RCL1	0.620718
RD3	0.7961197
RDH1	0.8223617
RDH13	0.62989545
RDH5	0.40542412
RDH9	0.5280585
REEP3	0.51108456
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REG2	13.868011
REG3A	12.278239
REG3B	14.605612
REG3D	10.019589
REG3G	13.4921055
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RELB	1.2863464
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REPIN1	0.90205
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RGS9	1.1631451
RHBDF1	0.8426752
RHBDF2	0.75272036
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RHOBTB1	0.58605623

RHOC	0.9923868
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RHOX3F	0.31591654
RHPN2	0.6318579
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RIC8	0.6273198
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RILPL2	1.287044
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RIMS4	0.9608853
RIOK2	0.6819453
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RLIM	0.6912074
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RNASEH1	0.47139168
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RPP40	1.2160497



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RRAS2	1.3488345
RRBP1	0.9010148
RRP12	0.7748308
RRP15	0.7597933
RRP1B	1.023047
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RTP4	1.4306049
RUFY2	0.47437716
RUFY3	0.7586484
RUNDC1	0.30706072
RUNDC3B	1.9817231
RUNX1	0.60463095
RUNX2OS1	0.41221976
RUNX3	0.9555454
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RXFP1	0.5484624
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SCGB3A1	0.5012944
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SCML4	0.8452697
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SCN3A	0.84670043
SCN5A	0.92508507
SCN8A	0.48725986
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SCPEP1	0.34847498
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SDC1	1.533021
SDC4	3.422792
SDCBP2	0.9150491
SDHAF1	1.3111482
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SDR39U1	0.75992775
SDR9C7	0.8162627
SDS	2.1619833
SEC1	1.8523443
SEC11A	0.357244
SEC13	0.4966793
SEC23B	0.39737082
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SEC24D	1.1031218
SEC31A	0.6023731
SEC61A1	0.5380454
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SEMA4A	0.45995808
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SEMA7A	1.9752951
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SETD4	0.63612604
SETDB2	0.681818
SEZ6L2	0.62358403
SF11	1.4509997
SFMBT2	2.016742
SFR1	0.7105417
SGCB	1.2728329
SGK2	2.6469991
SGPL1	0.7245102
SGSH	0.5512557
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SH3BP2	0.6798072
SH3BP5	0.62536955
SH3D21	0.6121373
SH3GL3	2.156971
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SHBG	0.45251656
SHE	0.541131
SHISA3	4.1441927
SHISA5	1.0528941
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SHROOM2	1.2759628
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SIDT1	0.66260195
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SKAP2	0.8073306
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SLC28A3	1.3395741
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SLC2A6	2.782195
SLC2A7	0.95133185
SLC30A4	0.85532856

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SLC34A2	1.2769227
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SMAD5	0.45953083
SMAGP	0.6238165
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SMOC1	1.3785474
SMOC2	0.58946276
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SMYD2	0.7020917
SMYD3	0.3838868
SMYD5	1.1021118
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SNHG3	0.60962486
SNHG7	0.74445057
SNORA74A	0.6754346
SNTB2	1.6369514
SNX10	1.6010828
SNX12	0.45786572
SNX18	1.4823179
SNX20	0.5238662
SNX6	0.6468134
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SOCS1	2.369255
SOCS2	1.7987466
SOCS3	3.7506132
SOD2	1.9517536
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SORCS1	1.4935014
SOSTDC1	1.4543424
SOWAHC	1.6592469
SOX7	1.6990426
SOX9	1.0603983
SP140	0.49705553
SP6	1.1658945
SPACA3	0.9640093
SPAG9	0.368248
SPATA20	0.5447478
SPATA25	0.6848521
SPATA5L1	0.4697349
SPATS2	0.90326476
SPDEF	2.363796
SPEER1-PS1	0.3062334
SPEER2	0.78205466
SPEER4A	0.47929478
SPEER4B	1.2317321
SPEER5-PS1	0.59509015
SPEF2	0.89495325
SPG20	0.7447121
SPG21	0.3434124
SPIC	0.9985318
SPIN1	0.9407983
SPINK14	0.87632847
SPINK3	10.965017
SPINK5	1.063067
SPINT1	1.0895622
SPINT2	0.53434706
SPINT4	1.3428802
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SPON1	2.191512
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SPRY2	0.8292749



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SPTSSB	1.0652099
SRA1	0.48229122
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SRFBP1	0.7982769
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SRM	0.75351477
SRP68	0.33925962
SRP9	0.37924194
SRPRB	0.61704826
SRRM3OS	1.6378489
SRY	1.2563403
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SSR3	0.60394955
SSSCA1	0.52830553
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SSX9	0.89829826
SSXB7	0.84708214
ST13	0.5791054
ST14	0.5101285
ST6GALNAC4	1.2187662
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ST8SIA1	0.72857976
ST8SIA2	1.1102021
STAB1	1.2723045
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STAG3	0.5245116
STAM	0.525146
STAM2	1.0691328
STARD13	0.71599865
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STARD7	0.97462606
STAT2	1.0791183
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STC1	2.9026022
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STEAP4	1.7407432
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STK32A	1.9159834
STK39	1.6758242
STK40	0.8640642
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STOML3	1.0439568
STON1	1.8721786
STRA6	2.9757552
STRIP1	0.6257701
STRIP2	1.3041162
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STX8	0.4894786
STXBP3A	1.0871911
STXBP3B	0.92165613
STXBP5L	0.925756
SUCO	0.62087154
SULF1	1.114336
SULT3A1	0.9414754
SUPV3L1	0.50230026
SURF4	0.8062811
SURF6	0.7868142
SUSD2	1.4056592
SUV39H2	0.3763671
SVAL1	1.3814425
SYAP1	0.45990038
SYCE1L	1.1351402
SYCN	11.438496
SYCP1-PS1	0.6226635
SYDE1	0.88934565
SYK	0.919302
SYN1	1.002953
SYN2	1.4022579
SYNCRIP	0.5463171
SYNGR2	0.6656656
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SYTL3	1.8535318
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TBL3	0.4376073
TBX1	2.2526228
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TCAM1	1.6297574
TCF4	0.64388895
TCF7	0.77854824
TCIRG1	0.37806654
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TCP10B	1.5949643
TCP10C	0.88962245
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TDH	2.8079844
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TDRD9	1.0056896
TDRP	1.0889893
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TEAD3	1.1720121
TEAD4	1.5199823
TEKT3	1.2453947
TES	1.1836772
TET2	0.76671505
TEX10	0.5125952
TEX12	1.2617378
TEX26	1.684068
TEX264	0.4801507
TEX40	0.94087005
TFCP2L1	1.035891
TFF2	8.525592
TG	0.92957306
TGFA	0.7086618
TGFBR2	0.43873405
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**Mice\_onset\_lung\_DEgenes\_fc**

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CABP2	-1.6219854
CABP4	-0.6095519

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CACNA1E	-2.1808026
CACNA1F	-0.9996076
CACNB4	-1.5552804
CACNG1	-1.9611881
CACNG2	-1.4702523
CACNG3	-1.7075732
CACNG4	-0.8627639
CACNG5	-2.2013202
CACNG7	-3.8679912
CACNG8	-2.2921903
CADM3	-3.7046542
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CALB1	-1.5257843
CALB2	-2.5660958
CALCB	-1.721581
CALD1	-1.0636134
CALHM1	-0.9649303
CALHM2	-0.5630603
CALM2	-0.2233963
CALM5	-2.1975422
CALML4	-1.3678727
CALN1	-0.4112411
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CALU	-0.3031783
CAMK1	-0.6316247
CAMK1D	-3.3231554
CAMK2N1	-0.4204497
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CAND1	-0.5241842
CAND2	-1.2318401
CANX	-0.3095756
CAPN10	-3.2387648
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CAPRIN1	-0.9003325
CAPZA1	-0.8702989
CAPZA3	-1.6954236
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CAR11	-1.1625698
CAR14	-5.2080317
CAR2	-0.6599536
CAR3	-4.9416485
CAR5A	-10.940637
CAR6	-3.2574291
CAR7	-2.9570088
CARD10	-1.4478879
CARD14	-1.3456154
CARHSP1	-0.3777118
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CARLR	-2.2809687
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CARNS1	-0.766722
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CARS2	-1.0460548
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CASP8	-0.5433979
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CATSPER2	-1.8734374
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CBX3	-0.2306929
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CD5L	-8.776566
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CDA	-6.5378246
CDADC1	-1.1627908
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CDC25A	-0.5942345
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CDC34	-1.5437741
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CDC37L1	-0.4190431
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CDH3	-2.1428802
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CDHR2	-1.2433405
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CDKAL1	-0.3800206
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CDRT4	-1.2810829
CDRT4OS1	-1.479784
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CDV3	-0.7496972
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CDX4	-3.5663822
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CES4A	-3.475373
CES5A	-2.1814377
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CFH	-2.9597259
CFHR1	-11.5137
CFHR2	-4.117684
CFI	-10.457387
CFL2	-1.0631495
CFP	-2.1547556
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CHEK2	-1.1164019
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CHKB	-1.6007648
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CHMP6	-1.169765
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CHN1OS3	-2.2463672
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CKS1B	-0.5765243
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CLDND2	-1.1406958
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CLEC18A	-1.8600717
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CLEC7A	-0.7776103

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CLK3	-0.1842904
CLMN	-2.742022
CLN3	-0.610795
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CLNKOS	-2.1218107
CLNS1A	-0.8749824
CLP1	-1.1388102
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CLPP	-2.1698227
CLPSL2	-0.651372
CLPTM1	-1.9563284
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CLRN3	-1.5760846
CLSPN	-0.2995532
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CLTA	-0.6870904
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CMC2	-2.1512384
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CMTR2	-0.2562232
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COIL	-0.2833285
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COPA	-0.8103409
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CORO6	-0.6930733
CORO7	-1.1372957
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CPN2	-9.986153
CPNE4	-2.8331206
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CPPED1	-3.1916451
CPQ	-2.173286
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CPSF3	-0.7313342
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CPSF4	-1.3276496
CPSF4L	-5.3875456
CPT1A	-2.875452
CPT2	-3.5359545
CPVL	-2.155079
CPXCR1	-3.8250852
CR2	-1.0024698
CRABP2	-0.4350653
CRADD	-1.501811
CRAT	-0.5053489
CRB1	-1.2952952
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CRCP	-1.8724928
CRCT1	-2.170727
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CREB5	-1.7165179
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CREG1	-2.6027694
CREG2	-0.9584847
CRELD1	-1.711896
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EIF4EBP1	-1.4064035
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EIF4G1	-1.6989155
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ELMOD3	-1.4016414
ELOF1	-0.5550938
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ELOVL3	-2.5831807
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ENPEP	-1.6127238
ENPP1	-2.0800877
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ESP6	-1.9855659
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ETNK2	-8.284945
ETNPPL	-10.218514
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FIBP	-1.6776819
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GATSL3	-0.737767
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GCFC2	-0.977078
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GCK	-7.103181
GCKR	-12.01654
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IFT52	-0.9724717
IFT88OS	-2.1535635
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IGF2BP3	-4.75476
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IGFALS	-10.087584
IGFBP1	-11.841067

IGFBP2	-4.45442
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REG1	-2.0797591
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SOSTDC1	-1.0191817
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SPEER9-PS1	-1.646066
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SPRY3	-1.9839432
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SQRDL	-2.7044458
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SRCRB4D	-1.5720577
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SREBF1	-3.052566
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SRM	-1.5371895
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SRP68	-0.6574817
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SRPK1	-0.2671838
SRPR	-1.2917562
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SRSF2	-0.1563735
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SSFA2	-1.2841034
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ST6GAL1	-3.2674646

ST6GAL2	-1.0987267
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ST7	-0.2749114
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STAT5B	-0.9189572
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STRA13	-1.7394295
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STRADB	-1.75489
STRAP	-1.3177619
STRBP	-1.2197673
STRM	-2.0718524
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SUGP1	-0.206471
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SUPT3	-1.8138201
SUPV3L1	-1.1199574
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SYCP1	-2.075706
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TBP	-0.3116665
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TBX18	-2.142458
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USF2	-1.5088859
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USH1G	-1.6331072
USHBP1	-0.3493519
USMG2	-2.0767126
USMG5	-1.8283706
USO1	-0.5802698
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USP12	-0.5070686
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WBP2	-0.5016947
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BLZF1	0.6301141
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BMP4	2.34449
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BMPR1B	2.599528
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BRD9	0.8340931
BRINP1	4.145658
BRIX1	0.577549
BRMS1L	0.99211645
BRPF1	0.77937365
BRSK1	2.0951571
BRWD1	0.820426

BSPRY	2.7306247
BST1	4.2758636
BTAF1	0.29323673
BTBD10	1.4622111
BTBD11	1.7795529
BTBD19	0.47269154
BTBD3	0.85960937
BTBD7	1.3581455
BTG1	0.40807247
BTG2	2.1732283
BTG3	2.7534957
BTK	0.6759081
BTLA	2.6665854
BTNL10	0.37608624
BUB1	0.54652095
BUD13	0.21536493
BVES	3.1967056
BZRAP1	0.7875912
BZW2	1.4146895
C1GALT1	0.38126373
C1QTNF2	1.1591024
C1QTNF3	0.9884839
C1QTNF7	3.4843688
C2CD3	1.0780096
C2CD4A	1.4469001
C2CD4B	5.6445956
C5AR1	3.5124505
C7	4.65907
CAB39	0.58066607
CABP5	1.810133
CACHD1	2.480568
CACNA1C	3.4792247
CACNA1D	2.3996334
CACNA1S	0.34245157
CACNA2D1	3.2843513
CACNA2D2	0.8569257
CACNA2D4	2.4592712
CACNB1	0.726192
CACNB2	0.6134734
CACNB3	1.2755542
CAD	1.5829048
CALCA	4.4374137
CALCOCO1	0.7299075
CALCOCO2	0.15065098
CALCRL	3.488426

CALM1	0.30651903
CALML3	1.0912981
CALY	0.69413877
CAMK1G	1.5180604
CAMK2A	0.780051
CAMK2D	1.2195563
CAMK2G	0.27556562
CAMK4	1.2140481
CAMKK1	1.7008176
CAMKK2	1.3089409
CAMKV	0.506382
CAMP	3.692462
CAMSAP1	1.6875215
CAMSAP2	1.9568067
CAMTA1	2.7612495
CAMTA2	0.15094376
CAP1	1.2188134
CAP2	2.3458896
CAPG	2.711472
CAPN1	0.4425435
CAPN13	1.6527777
CAPN2	0.68096733
CAPNS2	2.3581123
CAPS2	2.4532576
CAPSL	2.9635677
CAR12	0.68600893
CAR13	3.4509938
CAR15	0.8490958
CAR8	0.21620011
CAR9	0.19053507
CARD11	2.1045094
CARF	0.37938356
CASC1	4.56916
CASC4	1.5406041
CASC5	0.97659755
CASK	0.8986473
CASKIN2	0.5068164
CASP1	0.687932
CASP12	0.61528134
CASP2	0.8178568
CASP4	3.2828646
CASP8AP2	1.0441089
CASQ2	2.943288
CAST	0.39643335
CASZ1	3.7012045

CATIP	0.4268446
CATSPER4	0.7457168
CAV1	4.139792
CAV2	3.522193
CAV3	3.9774194
CBFA2T3	1.8501415
CBFB	1.2075434
CBL	2.822873
CBLB	1.8101873
CBLL1	0.40305662
CBR2	9.845379
CBR3	2.0566225
CBWD1	0.5191574
CBX5	0.7191682
CBX6	0.91152143
CC2D2A	0.88269234
CCBE1	1.1015859
CCDC102A	1.4747424
CCDC103	1.9412072
CCDC108	1.9658263
CCDC109B	1.9621651
CCDC11	4.6112814
CCDC112	0.54194593
CCDC113	6.8228135
CCDC114	0.4330125
CCDC115	0.4575014
CCDC120	0.8489032
CCDC121	2.811455
CCDC122	0.39333487
CCDC126	0.33776712
CCDC127	0.19557333
CCDC129	2.150005
CCDC13	2.8956063
CCDC132	0.52190685
CCDC134	0.2608838
CCDC135	1.473742
CCDC136	1.5799723
CCDC141	1.2439477
CCDC146	0.53175974
CCDC147	3.4442298
CCDC15	1.7717283
CCDC150	3.0662692
CCDC153	6.7453594
CCDC155	2.5947828
CCDC160	1.620584



CCDC17	1.6881177
CCDC170	2.8759797
CCDC173	2.9459288
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CCDC176	1.3002577
CCDC181	1.2445912
CCDC184	3.6789029
CCDC19	5.7985053
CCDC30	1.6985502
CCDC33	2.2841995
CCDC37	2.9475448
CCDC39	3.3801644
CCDC40	1.96976
CCDC42B	1.2242639
CCDC50	0.25895214
CCDC59	0.56936216
CCDC62	0.50156784
CCDC64B	3.005199
CCDC65	2.761984
CCDC66	1.2056961
CCDC67	0.90648746
CCDC68	0.72199297
CCDC69	1.0362005
CCDC71L	1.5518336
CCDC77	0.6527753
CCDC78	4.338008
CCDC81	4.0755777
CCDC85A	2.8166873
CCDC88A	2.7062821
CCDC88B	2.2717452
CCDC88C	0.88038707
CCDC92	4.06405
CCDC96	0.51510906
CCKAR	5.901823
CCL1	1.9278648
CCL11	4.7757907
CCL12	5.357309
CCL17	7.50753
CCL19	0.25676727
CCL2	4.3223877
CCL3	6.5118375
CCL4	4.254403
CCL5	1.8540192
CCL6	0.8938656
CCL7	5.3001566

CCL8	2.0249825
CCM2L	1.6993718
CCNA1	1.6327465
CCNC	0.25360155
CCND2	2.5713105
CCNDBP1	0.25548887
CCNG2	1.0772495
CCNJ	1.8898764
CCNJL	0.7646606
CCNL1	2.0053334
CCNO	2.3028774
CCNT1	0.43335962
CCNT2	0.15162039
CCNYL1	1.2501979
CCP110	1.7182088
CCR10	1.0170023
CCR1L1	0.72019005
CCR2	1.8356643
CCR6	3.1928558
CCR7	3.0957384
CCR8	0.29897428
CCR9	1.4384942
CCRL2	4.1570024
CCSAP	0.35343027
CCSER1	0.87747145
CCSER2	0.9851165
CD101	0.24919724
CD109	1.1467533
CD14	2.7672124
CD160	2.174722
CD163	0.6731038
CD163L1	3.015897
CD164L2	1.3872864
CD177	4.3754654
CD19	1.0977633
CD2	2.3148255
CD200	5.149815
CD207	1.1578479
CD209A	3.5643103
CD209C	2.2422009
CD209D	2.1195183
CD209E	2.371802
CD209F	2.1734142
CD209G	1.4791644
CD226	1.5782971

CD244	0.6468396
CD24A	4.0723968
CD27	0.30684876
CD274	2.447782
CD28	1.3028827
CD300LF	2.5148802
CD33	5.511957
CD34	4.452408
CD36	2.0468702
CD37	0.8974142
CD3D	1.8823562
CD3E	0.57776594
CD3G	1.365037
CD40	3.3402271
CD44	1.8683233
CD46	0.6820111
CD47	0.29054928
CD48	0.34235477
CD5	1.8525667
CD52	1.5551667
CD53	2.858006
CD55	0.6502781
CD6	2.1547937
CD63	1.0858512
CD69	5.395208
CD72	0.7638693
CD79A	0.61448216
CD79B	1.0089211
CD80	0.66875505
CD83	1.0967245
CD8A	1.7570772
CD8B1	2.218277
CD9	1.4803224
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CD96	1.7705994
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CD99	1.3477893
CDAN1	0.43126297
CDC14A	1.8746872
CDC25B	1.4560919
CDC27	0.36820078
CDC42	0.16472387
CDC42BPA	1.6643262
CDC42BPG	1.3885875
CDC42EP1	0.48537922

CDC42EP2	1.8352551
CDC42EP3	2.5637174
CDC42EP4	1.2445555
CDC42SE1	1.1794538
CDC42SE2	1.2589664
CDC45	0.82389164
CDC5L	0.7998891
CDC6	0.35246468
CDC7	0.46254802
CDC73	0.83332443
CDCA4	0.37336922
CDCA7	0.7640996
CDCP1	1.0764823
CDH1	2.0235448
CDH11	1.3021214
CDH13	0.8604355
CDH15	1.6054685
CDH16	6.302677
CDH22	2.813042
CDH5	2.1032772
CDH6	0.94212747
CDHR3	3.47746
CDHR4	4.0132413
CDK11B	0.35786676
CDK12	0.31326246
CDK13	0.41569424
CDK14	2.9541135
CDK17	0.8694687
CDK19	0.84072495
CDK5R1	0.5458038
CDK6	1.0091405
CDKL1	1.0904031
CDKL2	1.5875578
CDKL3	1.1279619
CDKL4	2.0937207
CDKL5	1.6946542
CDKN1A	1.6168733
CDKN1B	0.8979354
CDKN1C	0.9937477
CDKN2B	4.2403083
CDKN2D	1.8694873
CDNF	0.9057114
CDON	1.2119677
CDPF1	0.4926777
CDR2	1.8979416

CDR2L	0.50350237
CDS1	3.4209986
CDYL2	1.54987
CEACAM10	4.8840823
CEACAM16	1.0508466
CEBPD	4.708289
CEBPE	0.514626
CEBPG	0.49975204
CECR2	1.151814
CEL	0.79881644
CELF2	1.593338
CELF6	0.30108523
CELSR2	0.5097184
CELSR3	3.8863769
CENPC1	0.7158561
CENPE	0.46278334
CENPJ	0.72213316
CENPT	0.37651587
CEP104	0.83442855
CEP112	1.7237995
CEP112OS2	1.2735329
CEP120	1.0943108
CEP128	0.76846194
CEP135	0.49250507
CEP162	0.7290573
CEP170	1.7849708
CEP192	1.1433043
CEP290	1.3162878
CEP350	0.46561575
CEP55	0.8077047
CEP70	1.3767924
CEP76	0.2107575
CEP83	0.9230571
CEP85L	0.59586644
CEP95	0.5248642
CERCAM	1.3018608
CERK	1.5032468
CERS3	0.45036364
CERS4	1.4492745
CERS5	2.0274334
CERS6	1.3688698
CETN2	0.5035038
CETN3	0.26926994
CETN4	2.1666236
CFD	4.7511926

CFL1	0.39669895
CFLAR	1.5618482
CFTR	1.2334023
CGGBP1	0.22273827
CGN	0.36801958
CGNL1	0.68014526
CH25H	7.3673854
CHAD	4.466387
CHAMP1	0.8380568
CHD1	1.5029421
CHD2	1.8630848
CHD3OS	1.2319863
CHD5	1.7444377
CHD6	1.1472831
CHD7	1.1306839
CHD8	0.67070055
CHEK1	1.0607874
CHGA	0.55040145
CHGB	1.3212781
CHIA1	7.36826
CHIC1	0.9104824
CHIC2	1.319097
CHIL1	3.5461116
CHIL3	4.849409
CHIL4	3.0106318
CHIL5	4.9247036
CHL1	3.4137983
CHM	0.4864273
CHML	1.9184203
CHMP4B	0.42240667
CHMP4C	1.2042272
CHN1	2.5321162
CHPF	1.6041908
CHRD1	1.8999248
CHRM2	3.2526412
CHRM3	2.7222986
CHRNA10	0.9677193
CHRNA7	0.7842605
CHRN1	3.3617518
CHST1	6.9697337
CHST10	1.009373
CHST11	4.113372
CHST12	1.835562
CHST14	0.22367334
CHST15	0.47753096

CHST3	2.3309884
CHST5	2.1901436
CHST8	4.011756
CHSY1	1.3771048
CHTF8	0.21334505
CHTOP	0.1514883
CIC	0.45088577
CIDEA	3.0406756
CIDEC	2.419828
CILP	0.81725717
CISH	2.111343
CITED1	1.2286313
CIZ1	0.43677425
CKAP4	2.6798334
CKAP5	0.6692934
CKLF	1.8938966
CKM	1.9398062
CKMT1	0.8181801
CKMT2	6.1313767
CKS2	2.2025595
CLASP1	0.6917572
CLASRP	0.18608236
CLCA3	7.603313
CLCN6	0.44041085
CLCNKA	3.0720196
CLDN10	5.734828
CLDN15	0.4080038
CLDN18	2.6136284
CLDN22	2.3352058
CLDN5	3.4468584
CLDN7	3.4059076
CLDN8	2.1803997
CLDN9	1.0648332
CLEC10A	1.6475296
CLEC12B	0.5468395
CLEC1A	2.2964644
CLEC2I	0.9270606
CLEC3B	2.9054465
CLEC4A1	0.9070473
CLEC4A3	0.4665823
CLEC4A4	1.1582584
CLEC4B1	1.0286822
CLEC4D	5.4438753
CLEC4E	5.2542295
CLEC4N	0.3844242

CLEC5A	3.267853
CLEC9A	0.8077369
CLIC1	1.4478159
CLIC3	6.7846413
CLIC4	3.0850172
CLIC5	5.8202147
CLIC6	6.79585
CLIP1	1.438262
CLIP2	0.74402523
CLIP3	2.4007745
CLIP4	4.5816875
CLK1	0.7677536
CLK2	0.8974428
CLMP	2.813775
CLNK	2.5761683
CLOCK	0.3832445
CLSTN1	2.736299
CLSTN2	3.6308093
CMA1	1.5187614
CMIP	0.78186226
CMKLR1	1.709326
CMPK2	1.5777326
CMTM2A	1.0967517
CMTM3	0.52202654
CMTM7	0.7258601
CMYA5	1.7551951
CNBD2	1.1589077
CNEP1R1	0.5703697
CNFN	1.3503745
CNGA1	0.647321
CNGA2	2.5340178
CNIH2	0.34114337
CNIH4	0.8520436
CNKSR1	2.2366605
CNKSR2	0.79043555
CNKSR3	0.45347834
CNN1	6.370219
CNN2	2.2128372
CNNM4	0.23568726
CNOT2	0.24014378
CNOT4	1.0856943
CNPY4	0.59321404
CNR1	3.0063825
CNRIP1	0.42505884
CNTLN	0.7211299



CNTN1	5.10454
CNTRL	1.3278513
COG3	0.60023785
COG5	1.8491259
COL13A1	1.034955
COL16A1	1.6118708
COL1A1	2.041441
COL1A2	2.1359706
COL23A1	4.1358676
COL2A1	1.2460701
COL3A1	0.650537
COL4A1	3.269289
COL4A2	2.8531885
COL4A3	4.80116
COL4A3BP	0.5035615
COL4A4	3.096871
COL4A5	3.2158031
COL4A6	2.025704
COL5A2	1.0853531
COL6A1	3.0834227
COL6A2	2.5745635
COL6A3	1.7690177
COL7A1	2.8636332
COL8A1	1.3141232
COL8A2	1.5777097
COLGALT2	1.0569255
COLQ	3.9805193
COMP	1.7382812
COPS4	0.23879528
CORO1A	2.0475593
CORO1C	0.35366678
CORO2A	1.2983322
CORO2B	1.1326585
COTL1	0.55813265
COX4I2	2.5614834
COX6A2	5.613739
COX6B2	0.98737717
COX8B	6.541196
CPA3	2.829223
CPB1	0.23786926
CPD	1.6549816
CPE	3.8534002
CPEB1	1.5087814
CPEB4	1.1282587
CPED1	0.6645942

CPM	2.0987296
CPNE1	0.4051242
CPNE5	0.7145114
CPNE7	1.2705705
CPNE8	0.67610025
CPSF2	0.55905676
CPSF6	0.9125562
CPSF7	0.6157279
CPXM1	0.53496504
CR1L	0.29334497
CRABP1	0.95401406
CRAMP1L	0.8313503
CREB1	1.7994044
CREB3L1	1.7869787
CREB3L2	0.44019222
CREB3L4	1.3369391
CREBL2	0.91943216
CREBRF	1.619669
CREBZF	0.17989779
CRELD2	0.6558409
CRIM1	2.113398
CRIP1	1.4262142
CRIP2	0.2283163
CRISPLD2	5.58203
CRK	1.102118
CRLF1	5.4520235
CRLF2	0.26608944
CRLF3	1.3502674
CRMP1	2.7626433
CRNDE	1.4729631
CRTAM	2.038684
CRTC3	0.40873766
CRYAA	1.7439919
CRYAB	2.9976182
CRYBG3	2.4034405
CSF1	2.1215186
CSF2	4.8627124
CSF2RA	1.6884499
CSF2RB	1.6081915
CSF2RB2	0.8228936
CSF3	4.525467
CSF3R	1.344574
CSGALNACT1	3.1429038
CSGALNACT2	1.4508686
CSNK1A1	0.3489833

CSNK1E	1.7808695
CSNK1G1	1.3055835
CSNK1G3	0.2557764
CSPG4	5.4399695
CSRNP1	3.8733983
CSRNP3	1.4294121
CSRP1	2.150486
CST3	0.36235523
CST7	1.8025956
CST8	2.291585
CSTAD	0.9863038
CSTF2	0.4852667
CTBP2	2.394413
CTBS	1.0019603
CTDP1	0.4933939
CTDSPL	1.5060887
CTDSPL2	0.97093916
CTGF	1.9441409
CTLA2A	3.5044088
CTLA2B	2.8419785
CTLA4	1.8738425
CTNNA1	1.6604629
CTNNAL1	0.5074401
CTNNB1	0.7717066
CTNND2	2.6482403
CTPS	3.590869
CTRL	1.1104896
CTSK	2.0983653
CTSO	0.536324
CTTNBP2NL	3.287592
CTXN1	1.4925566
CUEDC1	1.2178793
CUL3	0.51374626
CUL7	1.4372396
CUX1	0.94865084
CWC22	1.87285
CWC27	0.61738205
CX3CL1	5.623307
CX3CR1	3.0497947
CXCL1	3.601387
CXCL10	3.6804585
CXCL13	0.63078785
CXCL14	5.406471
CXCL15	9.817976
CXCL16	1.8971529

CXCL17	7.778163
CXCL2	5.5286794
CXCL3	3.4859731
CXCL5	6.834544
CXCR1	2.5639818
CXCR2	4.7423954
CXCR3	0.8639822
CXCR4	2.4876199
CXCR5	1.5206833
CXCR6	1.0892558
CXX1A	0.7424989
CXX1B	0.30564547
CXX1C	0.4250207
CYB561	3.1838264
CYB5R1	0.38997412
CYB5R4	0.19578838
CYBA	1.233594
CYBB	2.056806
CYBRD1	2.9103067
CYFIP2	2.5726328
CYGB	0.32203817
CYLD	0.5518217
CYP1B1	1.8263154
CYP27B1	0.78517413
CYP2B10	0.18052006
CYP2F2	0.3881178
CYP2S1	5.501855
CYP4B1	4.183475
CYP4B1-PS2	1.488652
CYP4F18	2.149136
CYR61	2.4109955
CYSLTR2	0.7239435
CYSTM1	0.7373352
CYTH3	3.783062
CYTH4	0.35633802
CYTIP	3.9528928
CYTL1	5.2337003
CYYR1	4.5113974
DAAM2	1.329802
DAB2	0.5153189
DAB2IP	0.703949
DACH1	5.3141627
DACT1	1.075964
DACT3	0.7238121
DAF2	1.2941184

DAG1	0.962801
DAGLA	2.144707
DAPL1	2.543966
DAPP1	1.7278671
DAW1	1.0124393
DAXX	2.1720862
DBF4	0.5773163
DBH	2.3878274
DBN1	2.124207
DBNDD1	3.3379872
DCAF12L2	2.0007987
DCBLD1	0.5912161
DCDC2B	0.5489769
DCLK1	1.6361201
DCLK2	1.648951
DCLRE1B	0.738996
DCLRE1C	2.3788395
DCP1A	0.39382792
DCP1B	0.40029192
DCP2	1.5596333
DCSTAMP	2.1949174
DCTN1	0.8807831
DCTN4	0.40970755
DCTN6	0.45250893
DCUN1D3	1.9385455
DDAH2	1.3691759
DDIT3	1.0368218
DDIT4	1.6740785
DDR1	2.8452172
DDR2	2.8019047
DDX11	0.5331712
DDX17	0.7876148
DDX21	0.31685162
DDX23	1.1010973
DDX25	2.041347
DDX26B	1.5417051
DDX3X	0.22757673
DDX43	1.8497355
DDX5	0.5849056
DDX50	0.33287048
DDX55	0.80431795
DDX58	0.3122096
DDX6	1.3298931
DEDD2	0.44586802
DEF6	1.3988285

DEK	0.4304347
DENND1B	0.8611901
DENND1C	1.3774748
DENND2A	0.7226443
DENND3	2.3063517
DENND4B	1.0304742
DENND5A	0.84696674
DEP1	1.9304438
DEPDC1B	0.58805704
DES	2.0005345
DGCR14	0.8524804
DGKA	1.3181834
DGKD	1.0993862
DGKE	1.0491135
DGKEOS	0.89901614
DGKG	1.7542806
DGKH	3.9130177
DHH	1.4241402
DHRS7C	2.899373
DHRS9	2.4625182
DHX29	0.27109385
DHX9	1.9355955
DIAP1	0.82556915
DIAP2	0.823061
DIAP3	1.4934056
DIEXF	0.5931277
DIMT1	0.41957426
DIO2	5.3935738
DIP2A	0.67908716
DIP2B	0.32727718
DIRAS2	4.2778625
DKK3	1.9020448
DKKL1	1.1333075
DLC1	0.81251216
DLG4	1.7894213
DLG5	0.98002386
DLGAP4	1.2805023
DLK1	0.8358376
DLL1	2.304329
DLL4	0.881145
DMKN	4.823004
DMRT2	1.2927451
DMRT3	1.4208086
DMTF1	1.6239743
DMXL1	0.8349447

DMXL2	1.4776983
DNAAF3	0.27677155
DNAH10	3.5668998
DNAH11	4.5504475
DNAH12	2.9711301
DNAH14	0.2590239
DNAH2	3.860838
DNAH5	4.542144
DNAH6	6.2196846
DNAH7A	2.6609898
DNAH7B	3.3509638
DNAH8	2.3584216
DNAH9	3.121596
DNAIC2	4.6194434
DNAJA4	2.4920907
DNAJB1	0.94763184
DNAJB13	2.1782405
DNAJB3	2.367565
DNAJB4	0.8482909
DNAJB5	1.1269631
DNAJB6	0.6325612
DNAJB9	0.14803648
DNAJC1	0.18701172
DNAJC14	0.24813557
DNAJC2	0.92274094
DNAJC21	0.4163704
DNAJC27	1.0526974
DNAJC5	0.37712574
DNAJC5B	1.8916113
DNAJC9	0.37152958
DNALI1	5.287115
DNASE2A	1.0080786
DND1	0.22550344
DNHD1	0.79412556
DNM1	0.6233554
DNM3	2.1742585
DNM3OS	1.0634813
DNMT3L	2.4620216
DNTTIP2	0.39194155
DOC2B	4.2499394
DOCK1	0.78739405
DOCK10	1.9160328
DOCK11	1.8777924
DOCK2	1.7125173
DOCK4	0.7388263

DOCK5	1.062757
DOCK8	0.3238616
DOCK9	2.6755314
DOK1	0.7528515
DOK3	0.9731202
DOK4	1.8888903
DOK7	3.2072673
DONSON	1.5054975
DOPEY1	1.1165445
DPCR1	0.837255
DPEP1	4.5261807
DPEP2	2.668651
DPH2	0.20200872
DPP8	0.9015608
DPT	2.8461094
DPYSL2	2.773345
DPYSL3	3.1249232
DR1	0.3186865
DRAM1	2.8887582
DRC1	2.5687175
DROSHA	0.9819279
DSCAM	0.50259805
DSEL	1.5554342
DST	0.98077106
DSTN	0.4081297
DSTYK	1.9159627
DTNA	2.5776768
DTX1	0.89718246
DTX2	1.4723096
DTX3	0.4128518
DTX3L	0.3210373
DUSP1	3.4646773
DUSP11	1.6798344
DUSP14	0.6407428
DUSP16	1.514277
DUSP18	2.4849722
DUSP2	3.9173408
DUSP26	2.6290264
DUSP4	2.5910902
DUSP5	2.1626446
DUSP7	1.2047253
DUSP8	3.74235
DVL3	1.4280496
DYDC2	2.617682
DYNC1H1	0.6354852



DYNC1I2	0.57231855
DYNC1LI1	1.7363896
DYNC1LI2	1.4821701
DYNC2H1	1.4277749
DYNC2LI1	3.4969916
DYNLL1	1.8184192
DYNLRB2	8.942678
DYNLT1A	1.0167522
DYNLT1C	0.6828737
DYNLT1F	0.5010519
DYRK1A	0.3604412
DYRK3	0.98368645
DYX1C1	1.7654531
DZANK1	3.1570268
DZIP1	0.96464825
E4F1	0.59513044
EAR1	3.843563
EAR10	3.9897094
EAR12	4.0689535
EAR2	4.084855
EAR6	1.9912109
EBF1	3.8580055
EBF2	0.56111145
EBI3	3.0398636
ECM2	4.161104
ECSCR	2.4945254
ECT2L	2.1520157
EDIL3	2.8255935
EDN1	5.1011233
EDN3	1.0081112
EDNRA	2.0790148
EEA1	0.9699216
EED	0.32592106
EEF1A2	2.0460024
EEF1E1	1.4127922
EFCAB1	2.7990296
EFCAB10	4.7056694
EFCAB12	2.0949721
EFCAB14	0.83831596
EFCAB4A	1.3989425
EFCAB5	0.9293554
EFCAB9	0.32353926
EFEMP1	1.9583249
EFEMP2	1.0477118
EFHB	3.6401963

EFHC1	3.6942854
EFHC2	0.6389606
EFHD1	0.47271657
EFHD2	0.6785426
EFNA4	1.3889017
EFNB1	1.4157043
EFNB2	2.939704
EFNB3	1.6829488
EFR3B	3.76189
EFS	0.9334979
EFTUD1	0.35833502
EFTUD2	1.2253437
EGFBP2	1.6103725
EGFL6	4.1261
EGFL7	1.222095
EGFLAM	0.66458535
EGR2	2.9739003
EHBP1L1	0.5681691
EHD1	1.5257306
EHD2	4.336135
EHD4	2.1813517
EHF	3.48313
EID1	1.3208766
EID2	3.6568482
EIF2AK2	0.8764515
EIF2AK4	0.3499322
EIF2B2	0.15446377
EIF2S3Y	0.35957122
EIF3C	0.2520628
EIF4A1	0.24480867
EIF4A2	0.4295416
EIF4ENIF1	1.3617916
EIF5A2	0.70410013
ELF1	1.0606146
ELF2	0.8431301
ELF3	1.9041643
ELF4	1.3423095
ELF5	5.8666444
ELK4	0.90787077
ELMO1	1.0957649
ELMO2	0.8048754
ELMOD1	3.5390482
ELMSAN1	1.4110994
ELN	1.6046672
ELOVL7	1.7733879

EMB	3.826858
EMCN	1.5065508
EMID1	2.8712897
EMILIN2	2.034978
EML1	2.5238566
EML2	0.17958307
EMP1	4.0415316
EMP2	4.25053
EMP3	1.5722098
ENAH	3.5891085
ENC1	1.4886117
ENDOD1	1.7048507
ENG	0.6053729
ENKD1	0.5458646
ENKUR	4.693643
ENO2	1.4274094
ENO3	0.70957756
ENO4	3.1940129
ENPP4	1.3614345
ENTPD1	0.9564991
ENTPD3	3.9665565
EOGT	1.3625116
EOMES	1.6766515
EP300	0.9907322
EP400	0.70470905
EPAS1	1.0311389
EPB4.1L1	0.23738408
EPB4.1L2	2.359836
EPC1	0.86188745
EPCAM	2.8514748
EPDR1	3.7245247
EPGN	1.4026849
EPHA2	0.5169301
EPHA3	2.5014992
EPHA4	3.3968866
EPHB1	1.218219
EPHX4	3.4232366
EPN2	1.5584702
EPN3	0.34777737
EPS15	0.37200642
EPS15L1	0.17584419
EPS8	1.6985526
EPS8L1	4.1652966
EQTN	0.42332053
ERBB2	2.6616926

ERBB2IP	0.6514487
ERCC1	1.3215799
ERCC6	0.20517659
EREG	2.3322918
ERG	1.8724065
ERI1	0.3437519
ERICH1	1.0127869
ERICH2	2.1145608
ERICH3	3.5329044
ERMAP	0.21632195
ERO1L	0.46699333
ERV3	0.46072078
ESAM	2.4167619
ESCO1	0.8653884
ESM1	3.9056726
ESR2	0.992671
ESRP1	2.8097527
ESYT1	0.57592916
ESYT2	1.3365192
ESYT3	2.9341445
ETF1	0.17185163
ETL4	1.2376728
ETNK1	0.7116537
ETOH11	0.4706397
ETS1	1.7242022
ETS2	1.5012326
ETV1	1.5958076
ETV3	2.7789402
ETV5	2.1782932
ETV6	0.883729
EVA1B	0.5407696
EVA1C	3.2479339
EVC2	1.2866578
EVI2A	0.74271345
EVI5L	0.16838598
EVL	0.24237919
EVPL	3.0860786
EXOC1	0.25639772
EXOC2	0.58175516
EXOC3L4	0.22178745
EXOC4	0.37581635
EXOC5	0.50718164
EXOC6B	1.2980027
EXOC8	0.38388395
EXOG	0.717942

EXOSC10	0.17273903
EXPH5	1.3899021
EXT2	0.24679232
EYA2	6.493166
EYA3	0.22313166
EYA4	0.73070955
EZH1	0.6692395
EZH2	0.41282225
EZR	1.891098
F13A1	4.9075885
F2R	2.6890597
F2RL2	0.5347533
F3	3.605187
FABP12	2.5406795
FABP3	6.2916336
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FADS3	3.0911999
FAIM	0.18850231
FAIM2	2.4927106
FAIM3	0.98790646
FAM101A	3.5248313
FAM101B	3.1478364
FAM102B	1.0920577
FAM105A	3.8245046
FAM107A	2.272407
FAM110A	0.37032318
FAM111A	1.0801606
FAM115A	0.7065191
FAM117A	1.4564066
FAM117B	1.1812458
FAM120B	0.32218266
FAM124B	2.4573398
FAM126A	0.32125187
FAM129A	1.5416474
FAM129B	2.521637
FAM129C	1.1288972
FAM131A	3.0232615
FAM132A	1.2513738
FAM133B	1.4216132
FAM134B	0.430861
FAM13B	0.61310625
FAM13C	3.5615277
FAM150A	3.2408378
FAM154B	3.7759862
FAM159A	1.6415615

FAM160A1	0.6918855
FAM161A	1.9522455
FAM161B	2.4709692
FAM162B	6.421226
FAM166B	2.5244002
FAM167A	1.5316949
FAM168B	0.5175457
FAM170B	0.6795027
FAM171B	1.3341806
FAM174A	0.41477966
FAM174B	2.5640955
FAM178A	0.27455616
FAM178B	1.3504157
FAM179A	5.0527716
FAM179B	0.67070484
FAM183B	6.918971
FAM184A	1.1945531
FAM188A	0.34971476
FAM189A2	4.8705463
FAM189B	1.0586824
FAM196A	1.8147309
FAM198B	3.1715896
FAM19A3	1.4256673
FAM19A5	1.7275422
FAM206A	0.60642576
FAM208A	0.8427758
FAM208B	1.3259363
FAM212B	3.3771486
FAM216A	0.8676276
FAM216B	4.875821
FAM217A	0.9715166
FAM217B	1.6815012
FAM219B	0.3594265
FAM220A	0.30773497
FAM221A	1.70732
FAM222B	0.74340534
FAM26E	1.8154972
FAM3B	0.5159972
FAM43A	0.8620014
FAM46B	5.7459245
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FAM49A	1.3796706
FAM49B	0.84882903
FAM53B	0.7514205
FAM57A	0.25265193

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FAM63B	0.9461751
FAM65A	0.9386916
FAM65B	4.307409
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FAM71B	0.38943768
FAM71F2	1.8646505
FAM73A	1.1742387
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FAM76B	0.8660321
FAM78B	3.7960322
FAM81A	0.3044963
FAM81B	2.1320338
FAM83E	3.477413
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FAM98B	0.77515554
FANK1	3.1374674
FAP	3.2040133
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FARP1	1.560195
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FAT1	0.32228613
FAT3	1.6393588
FAT4	0.26305985
FBF1	0.62683344
FBL	0.2129221
FBLIM1	2.7314725
FBLN1	2.7330575
FBLN5	1.6340613
FBN1	2.647101
FBP2	1.6542561
FBRS	0.5453687
FBRS1	0.48134947
FBXL12	0.71658087
FBXL13	2.0158055
FBXL14	0.24175549
FBXL16	3.0996125
FBXL2	0.55031323
FBXL20	0.464962
FBXL22	0.7698264
FBXL3	1.1447215
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FBXL7	0.9409442
FBXO10	0.9104066

FBXO11	0.38886738
FBXO2	0.68254066
FBXO24	0.666909
FBXO27	2.0718925
FBXO30	0.556057
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FBXO39	0.90815496
FBXO42	0.49019623
FBXO46	0.62302876
FBXO5	0.70602655
FBXW10	1.2565613
FBXW11	0.4179263
FBXW17	0.68937063
FBXW7	0.78523874
FCER1A	1.1880157
FCER1G	1.5702972
FCER2A	0.65586686
FCGBP	1.6182067
FCGR4	0.29008484
FCHO1	0.7111778
FCHO2	1.4298615
FCHSD1	0.52341557
FCOR	0.80798745
FCRLA	2.4179552
FCRLB	0.87686324
FCRLS	2.764464
FEM1B	0.750062
FENDRR	2.3622317
FER1L4	1.2114081
FES	0.27495527
FEV	2.0802212
FFAR2	2.0963054
FFAR3	1.1325519
FFAR4	3.428452
FGD3	1.7203603
FGD4	1.2270436
FGD5	0.43267274
FGF10	3.5441253
FGF11	1.8084731
FGF12	1.1424072
FGF17	1.1147311
FGF18	2.1681595
FGF7	4.182008
FGFBP1	5.445271



FGFR1	2.2481775
FGFR2	0.9428587
FGL2	0.704257
FGR	1.667614
FHAD1	1.7421923
FHDC1	4.8083305
FHL1	4.510974
FHL3	0.80168366
FHL5	0.8465586
FHOD1	1.0775485
FHOD3	1.7515249
FIBIN	3.9650111
FIGF	4.3744617
FIGNL2	0.34140134
FILIP1	1.1370211
FILIP1L	1.6733541
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FIRRE	1.0667324
FIS1	1.0162582
FJX1	2.4813204
FKBP10	1.1449957
FKBP14	0.5723462
FKBP1B	1.6074076
FKBP5	0.90002584
FKBP6	2.2725172
FKBP7	0.94030285
FKBP9	0.5639229
FKTN	1.7360587
FLI1	2.0366993
FLII	0.22796297
FLNA	2.0658784
FLNB	1.79989
FLNC	3.781347
FLOT1	0.51167536
FLRT2	1.1136732
FLRT3	5.64748
FLT1	2.5088482
FLT3	1.0449159
FMNL1	1.5481734
FMNL2	3.3801737
FMNL3	0.90082693
FMO2	4.1295104
FMR1	0.78052044
FNBP1L	2.2842183
FNBP4	0.30816507

FNDC1	1.285259
FNDC3B	0.764822
FNDC5	1.485116
FNDC7	1.7899723
FOS	4.4170623
FOSB	0.74196196
FOSL1	2.0895443
FOSL2	3.3507004
FOXA1	1.2428341
FOXC1	1.6808763
FOXC2	1.9794834
FOXD2	1.197175
FOXD2OS	1.2607536
FOXF1	4.555743
FOXF2	5.00276
FOXI2	1.5851433
FOXJ1	5.083496
FOXJ3	1.3958864
FOXK1	0.33248615
FOXL1	0.77195287
FOXN2	1.020967
FOXN3	0.6036906
FOXN4	2.9731877
FOXO3	1.7065423
FOXO6	2.123439
FOXP1	1.7298594
FOXP3	2.0615284
FOXP4	0.40776348
FOXRED2	1.2204239
FOXS1	1.0537295
FPR1	2.2873406
FPR2	3.0803185
FPR3	2.4149945
FPR-RS6	1.441989
FRAS1	3.1649659
FRAT2	0.54260206
FREM1	3.3613553
FRG1	0.55286264
FRMD4A	0.8916073
FRMD5	2.607928
FRMD8	0.49154806
FRMPD1	1.5101664
FRY	2.3093982
FRYL	0.19330502
FSCN1	3.042067

FSD1L	2.2698185
FSIP1	1.0904593
FSTL1	1.8958206
FSTL3	2.932612
FTX	1.0411422
FUBP1	1.1796875
FUBP3	0.5206704
FUCA2	0.79234266
FUNDC1	0.5093961
FUNDC2	1.1648297
FUS	0.24701929
FUT11	1.1347785
FUT4	2.8637483
FUT8	1.0859213
FXR2	0.24174404
FXD2	0.67597914
FXD3	2.2840567
FXD4	2.3867292
FXD5	2.0181046
FXD6	2.3441687
FYB	1.3031168
FYN	1.2702165
FZD1	1.0211997
FZD2	2.416571
FZD3	2.8792229
FZD4	1.9956942
FZD5	0.8701155
FZD6	0.9644551
FZD9	1.4055033
G2E3	1.956295
G3BP1	0.2554779
G6B	1.2400031
G6PD2	1.2107544
G6PDX	0.21736526
GAB1	0.87524223
GAB2	0.74061203
GABBR1	1.758955
GABPB1	1.360188
GABPB2	2.087957
GABRE	0.6903727
GABRP	4.4001827
GADD45A	1.9841809
GADD45B	3.4639516
GADD45G	1.5053544
GAL	0.48513412

GALNT1	1.5815673
GALNT12	2.4099464
GALNT15	4.941923
GALNT16	3.7993393
GALNT18	3.3452296
GALNT3	3.027717
GALNT6	1.1787205
GALNT9	0.5160787
GAN	2.216556
GAP43	4.8955483
GAPT	1.6096509
GAPVD1	0.42050266
GAR1	0.43612194
GARNL3	3.253386
GAS2L1	1.2269378
GAS7	2.3132434
GAS8	1.4583349
GATA1	1.565419
GATA2	5.3385344
GATA3	2.9162316
GATAD2B	1.3648367
GATSL2	1.5100117
GBA2	0.20690393
GBAS	0.52000856
GBF1	0.19413042
GBP10	0.65309286
GBP2	1.5305533
GBP3	0.7985816
GBP4	2.6430588
GBP5	3.2836022
GBP6	0.7486844
GBP7	1.9098268
GBP9	1.3915854
GCA	1.8925643
GCC1	0.5881772
GCNT1	1.1800711
GCNT2	2.0426092
GCSAM	1.7939129
GDA	0.80103827
GDAP10	1.5362344
GDF9	0.8706496
GDI1	0.6538186
GDNF	4.2221875
GDPD1	4.4891033
GDPD2	8.261341

GDPD3	0.21174383
GDPD5	1.288969
GEM	3.2437162
GFI1	2.2524962
GFI1B	1.4738617
GFPT1	0.6179843
GFPT2	4.462103
GFRA4	3.3963122
GGA3	0.72324514
GGN	0.8226578
GGPS1	1.9342437
GGT1	2.153729
GGT5	1.107101
GGT7	1.1768382
GGTA1	1.7699394
GHRL	1.6265006
GIF	0.8511205
GIMAP1	0.6817851
GIMAP1OS	0.5623045
GIMAP3	1.3262272
GIMAP4	2.166448
GIMAP5	3.1792293
GIMAP6	2.1549773
GIMAP7	0.49431086
GIMAP8	2.2660718
GIPC2	1.4310665
GIT1	1.4379025
GJA1	3.6774445
GJA5	2.7816086
GJB3	5.3755236
GJB4	0.6982589
GJB6	6.01404
GJC1	3.5878682
GK5	0.9201124
GLA	0.28226328
GLB1L	0.54701424
GLB1L2	3.736175
GLCCI1	1.0942535
GLG1	0.69153214
GLI1	1.8686604
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GLIPR2	1.074873
GLIS2	1.4184175
GLIS3	0.82787275

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GM10091	1.7113123
GM101	2.4553688
GM10158	0.19309139
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GM10257	0.46467304
GM10325	1.3273604
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GM10404	0.34625578
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GM13298	1.1924415
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HERC2	0.6131439
HERC6	1.7282414
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ITPKB	2.5042644
ITPKC	0.3257842
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JAKMIP1	1.56843
JAM3	1.513782
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JPH2	0.5077951
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KAT5	0.40405607
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KCNE2	7.392354
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KCNE4	3.6224718
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KCNMB1	2.407992
KCNMB2	1.1808734
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KCNQ1	1.6632195
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KLC1	0.78367424
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L3MBTL3	1.1052461
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LAIR1	0.4434414
LAMA2	2.66321
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LAMB3	2.3862257
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LAMC2	6.78693
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LANCL3	0.8536458
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LARP4B	0.17357397
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LAT	1.1295719
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LBH	0.63837194
LBR	1.6146388
LBX1	1.075304
LBX2	0.37881708
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LCA5L	1.0109384
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LCN2	0.97295475
LCN6	0.65153
LCOR	1.3004026
LCORL	0.4237194
LCP1	2.2180786
LCP2	1.6838231
LCTL	0.7641144
LDB2	2.649241
LDB3	3.1550593
LDHB	2.184616
LDLRAD1	2.7398367
LDLRAD4	1.0896194
LEF1	3.198625
LEFTY2	2.3932776
LEKR1	1.8732057
LEMD3	0.6894388
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LEPREL2	0.7128582
LEPREL4	1.1748486
LETM2	2.0731044
LGALS1	0.8211632
LGALS2	1.2091036
LGALS3	1.2467928
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LGI3	7.089317
LGI4	1.1334748
LGR6	1.2103992
LHB	2.260093
LHFP	2.4680572
LHFPL3	1.2365413
LHX3	0.76510954
LHX4	0.36520576
LILRA6	1.6099629
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LIMCH1	7.4917254
LIMD2	0.2151084
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LIMK2	0.44411016
LIMS1	1.8279357
LIN28A	0.18994045
LIN54	0.29143715
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LIPH	5.4951315
LIPO1	1.7558031
LITAF	0.5700588
LIX1	0.77913165
LIX1L	2.694047
LMCD1	2.5973792
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LMNB1	1.9399896
LMO1	3.2372715
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LPXN	1.0354958
LRCH1	1.7269216
LRCH3	0.92743874
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LRR8B	4.324447
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LRRN3	0.5105958
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LTA	0.83822846

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LURAP1	2.1072273
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LYPD2	6.093366
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MARK3	0.67331266
MARK4	0.1662221
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MBIP	1.5671463
MBNL1	0.4528165
MBNL2	1.1221452
MBNL3	2.6589284
MBOAT1	3.3578353
MBOAT2	1.112323
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MEF2C	0.9999995
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MEG3	0.5976467
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MEGF8	0.5839677
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MICU3	1.6276295
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MOB1B	1.4131253
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MOB3C	1.1476908
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MON2	0.5593467
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MORN3	1.1796458
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MPP5	2.2873273
MPP7	2.0174394
MPPED2	0.98527074
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MRPL3	0.3301649
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PNN	0.7329545
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PODNL1	0.62186
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PODXL2	1.9690464
POF1B	2.5257053
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POLE2	0.2528484

POLH	2.0102959
POLK	0.41918015
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POT1B	2.2452989
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PPAP2A	0.43539572
PPARD	0.689064
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PPFIA1	0.4633212
PPFIBP1	0.41249895
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PPIP5K1	1.4409628
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PPM1D	0.61129665
PPM1E	1.5253127
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PPM1N	0.91025925
PPP1R10	0.29050732
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PPP1R3F	1.4735596
PPP1R9A	2.1968741
PPP1R9B	1.7193718
PPP2CB	0.7925134
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PPP2R2B	0.96282077
PPP2R2C	1.4879966
PPP2R5B	0.71786594
PPP3CA	0.71466446
PPP3CB	0.18939066
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PPP3R1	0.47904205
PPP4R1	0.59927464
PPP4R2	1.1681995
PPP6R3	0.5870409
PPRC1	0.3436501
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PPY	0.8150306
PQLC3	2.5119715
PRAF2	0.5888076
PRAM1	3.0134163
PRAMEF8	0.50713015
PRDM1	2.3694668
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PRDM2	1.2268438
PRDM4	0.8881955
PRDM5	3.6284547
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PRDM8	2.6317441
PRELP	0.49030256
PREX1	0.48262978
PREX2	2.136293
PRF1	1.5534749
PRICKLE2	0.23962736

PRICKLE3	0.2508149
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PRKAB2	1.0894008
PRKAR1B	2.7083054
PRKAR2B	3.3863811
PRKCA	1.277164
PRKCB	0.91753864
PRKCD	1.9929748
PRKCDBP	3.871028
PRKCE	1.7003837
PRKCH	2.6892333
PRKCI	0.62621975
PRKCQ	1.2901917
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PRKD2	1.788888
PRKD3	0.42910242
PRKG1	4.5842724
PRKG2	2.7367797
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PRL2C1	3.8263526
PRM2	1.7070208
PRMT1	0.16884708
PRMT2	3.3532043
PRMT8	1.0053577
PRNP	0.17931986
PROK2	7.693137
PRPF18	0.33408403
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PRPF38B	1.0612922
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PRPF4	0.3029189
PRPF4B	0.55014944
PRPS2	0.46595
PRR11	0.43663454
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PRR15L	6.025629
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PRR5L	1.7691622
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PRR9	1.5788505
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PRRC2C	2.0550933
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PRRG4	0.7507026
PRRT1	0.8804915
PRRX1	1.494211
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PRSS16	2.4946163
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PTPRZ1	2.8659678
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PYGO2	0.30900002
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PYY	1.0888717
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RAD18	0.56302977
RAD21	0.3489251
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RARS	0.3964467
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RBFOX1	1.9792335
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RBMS2	0.7363038
RBMS3	2.7997003
RBMX2	0.40076423
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RCOR1	0.463943
RCSD1	1.8237047
RD3	1.6838887
RECK	2.866955
RECQL	1.2456975
REEP1	0.22692299
REEP5	1.2163625
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RELA	0.9156637
RELB	2.6883588
RELL1	0.90778923

RELT	1.4378161
REP15	0.9839959
REPS1	0.5460911
RERE	0.8477428
RERG	0.8226299
RESP18	2.3930383
REST	1.8359437
RET	0.98024154
RETN	2.6835551
RETNLA	6.3735905
RETNLG	4.451732
REV3L	2.763111
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RFX2	1.5628126
RFX3	1.14523
RFX8	0.60885835
RGCC	8.427204
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RGMB	1.5645123
RGS1	2.4324455
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RGS11	3.139392
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RSPO1	1.9059086
RSRC2	0.6375909
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RTP4	1.1063418
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RUNX1	4.121807
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RUNX3	1.1292484
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SETD2	0.6604042
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SETD7	1.1421766
SETX	0.4062066
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SF3B4	0.39947605
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SFMBT2	0.6668594
SFN	1.4701617
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SFXN4	0.8432245
SGCA	1.9852648
SGCB	1.4125876
SGCD	0.59060335
SGCE	1.5265884
SGCG	1.0736511
SGIP1	1.0275667
SGK1	1.0630302
SGMS1	2.574059
SGPP2	2.970663
SH2B2	1.4058237
SH2B3	0.60112
SH2D1A	2.0535975
SH2D1B1	2.515869
SH2D2A	1.3051696
SH2D3C	1.9605746
SH2D5	1.8186798
SH3BGR	4.035409
SH3BGRL3	1.3113227
SH3BP4	2.2589068
SH3D21	3.3096557
SH3GL3	3.5806847
SH3KBP1	2.7350807
SH3PXD2A	1.7180023
SH3PXD2B	3.0840063
SH3RF1	0.9242525
SH3RF3	0.9014709
SH3TC1	1.6924081
SH3TC2	0.6783757
SHANK3	3.3796449
SHC4	1.6179919
SHE	0.34222555
SHH	2.1643555
SHISA4	0.50420666

SHISA5	0.6823139
SHISA7	0.6874807
SHOC2	0.37496233
SHROOM3	1.4078419
SIAH1A	0.5807185
SIAH3	0.5064573
SIDT1	1.6576071
SIGLEC5	3.3283014
SIGLECE	0.39059305
SIGLECG	1.0042188
SIK1	2.236465
SIK2	0.30270863
SIKE1	0.9682026
SIM2	0.31435776
SIMC1	0.39068604
SIPA1	0.7578969
SIPA1L2	1.767786
SIPA1L3	1.8745718
SIRPB1A	2.350892
SIRPB1B	2.261434
SIRT1	0.8584819
SIT1	0.94146657
SIX1	3.4754803
SIX4	3.9160993
SKA1	0.43206
SKAP1	1.4283557
SKAP2	1.2855291
SKIL	1.7539577
SKIV2L2	0.716321
SKOR1	1.3932948
SLA	2.5568423
SLA2	0.20787954
SLAIN1	2.2614772
SLAMF1	3.2089188
SLAMF6	1.162853
SLAMF7	1.3540392
SLAMF9	1.2549982
SLC10A3	0.49882793
SLC10A6	4.9036107
SLC10A7	2.302988
SLC11A2	0.48357582
SLC12A2	1.0782948
SLC12A4	0.87190723
SLC12A6	1.3051624
SLC13A2	1.3090076

SLC13A4	3.8126144
SLC14A1	0.38628292
SLC15A2	3.4182367
SLC15A3	1.4797039
SLC16A13	0.8040185
SLC16A3	2.9540176
SLC16A6	0.35520267
SLC16A8	1.4285219
SLC16A9	1.946372
SLC18A2	0.40431404
SLC18B1	0.28739643
SLC19A3	1.2918141
SLC1A1	4.7322245
SLC1A3	2.8566718
SLC1A5	3.2892942
SLC22A13	1.0250802
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SLC23A2	1.4020858
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SLC25A24	1.9310565
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SLC25A41	2.4141898
SLC25A43	0.97395086
SLC26A2	2.089046
SLC26A4	2.895932
SLC26A9	4.8153367
SLC27A3	1.6212811
SLC27A4	0.30905676
SLC27A6	2.137493
SLC28A2	1.2871194
SLC28A3	0.87808895
SLC29A4	1.6568952
SLC2A1	0.7181387
SLC2A10	1.5491135
SLC2A12	2.4109883
SLC2A13	1.2501864
SLC2A3	2.170292
SLC2A6	2.511568
SLC30A1	0.47689438
SLC30A4	0.52135324

SLC30A7	0.25591993
SLC31A2	0.35747433
SLC34A2	5.9132347
SLC35A4	0.22076511
SLC35E3	0.6768353
SLC35E4	2.6465893
SLC35F2	0.5999472
SLC35F3	1.3094671
SLC35G2	0.7959819
SLC35G3	0.7624111
SLC36A2	6.397305
SLC37A1	0.90890455
SLC38A1	2.602707
SLC38A2	0.5770955
SLC38A5	2.7222233
SLC38A9	0.19636583
SLC39A10	1.9282403
SLC39A3	0.8047209
SLC39A6	2.1376495
SLC39A8	2.1811838
SLC39A9	0.991848
SLC3A2	0.7178879
SLC41A1	2.2637005
SLC43A2	0.77104044
SLC43A3	5.589847
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SLC4A11	1.7323112
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SLC4A5	3.087985
SLC4A8	1.5071914
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SLC5A3	1.1473515
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SLC6A20A	1.2683372
SLC6A4	3.153694
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SLC7A3	2.1306252



SLC7A5	0.6709299
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SLC9A7	0.34965563
SLCO1A5	1.8753965
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SLFN10-PS	2.3947449
SLFN2	2.491487
SLFN3	4.720113
SLFN4	7.032175
SLFN5OS	0.5931275
SLFN8	2.6688747
SLIT2	2.9083347
SLIT3	3.6585374
SLITRK6	1.9050562
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SLMO1	0.5312524
SLN	8.409151
SLPI	0.8210511
SLU7	0.6114373
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SLX4	0.9090066
SLX4IP	1.2619388
SMAD1	1.1026859
SMAD3	0.7149377
SMAD4	0.5806265
SMAD5	0.18517017
SMAD6	1.5518303
SMAD7	0.73829126
SMAP1	0.57699394
SMARCA1	1.6426728
SMARCA5	0.23914576
SMARCA5-PS	1.1400223
SMARCD3	0.91725874
SMARCE1	0.20830679
SMC3	0.58111954

SMC4	0.5426307
SMC5	0.42149878
SMCHD1	1.4079032
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SMG1	0.7842927
SMIM15	0.59671783
SMIM3	3.4762158
SMIM5	4.666674
SMOX	2.4694905
SMPDL3B	2.4028668
SMPX	1.8465972
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SNAI1	3.0365
SNAP23	0.77911663
SNAP25	0.28923988
SNAPC1	1.2628117
SNAPC3	1.4736881
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SNCA	0.37940216
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SNHG1	0.72308826
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SNRPC	0.16628885
SNRPD1	0.48669004
SNRPF	0.6835556
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SNTN	3.665868
SNX1	1.8527904
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SNX11	0.2727008
SNX13	0.8312998
SNX16	0.45484972
SNX17	0.49293375
SNX18	1.1359396

SNX20	2.7812905
SNX22	3.5930617
SNX25	1.7624836
SNX27	0.37457657
SNX29	1.3742037
SNX30	0.49314404
SOAT1	1.212894
SOBP	3.195225
SOCS1	1.656045
SOCS2	2.016519
SOCS3	3.4395528
SOCS4	0.82553387
SOCS5	1.4294734
SOCS7	0.9182911
SOD3	1.1646786
SOGA1	1.3390036
SON	0.73415375
SORBS3	0.6004801
SORCS2	2.5680022
SORL1	4.252915
SORT1	3.1840472
SOS2	0.60000134
SOWAHC	1.4723582
SOX10	0.83012843
SOX17	1.3893733
SOX18	1.2547894
SOX2	3.8172615
SOX20T	0.65589666
SOX4	1.4164133
SOX7	3.7901816
SP100	1.3712807
SP140	0.8653307
SP2	2.2232747
SP3OS	0.8181925
SP4	0.89664364
SP6	1.0648999
SPA17	1.2987905
SPACA6	1.7675862
SPAG1	1.1514001
SPAG16	1.9436998
SPAG17	1.1673546
SPAG6	5.374623
SPAG9	0.4834051
SPARC	1.2402949
SPARCL1	5.5523257

SPATA1	0.74857664
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SPATA2	0.234303
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SPATA5	0.42021656
SPATA5L1	0.9305148
SPATA6	2.009529
SPATA7	0.37408686
SPATS2	0.3269539
SPATS2L	0.5370574
SPDEF	1.6280565
SPECC1	1.3890843
SPECC1L	1.8139496
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SPEER5-PS1	1.4377599
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SPEF2	2.1088166
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SPHK1	7.3345294
SPI1	1.6285114
SPIB	2.4024901
SPICE1	1.0185385
SPIDR	1.1277518
SPIN4	1.5360177
SPINK2	2.324999
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SPINK5	2.337437
SPINT1	3.092164
SPIRE1	1.5199199
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SPOCK2	6.4678493
SPON1	4.551349
SPOPL	0.8050003
SPPL3	0.39296865
SPRED1	1.5664315
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SPRTN	0.43918943
SPRY1	2.2414947
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SPRYD7	0.31255913
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SPTAN1	0.8940997
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SPTLC2	1.7074208
SPTLC3	1.2044702
SPTY2D1	0.37198687
SRCAP	1.041615
SRCIN1	2.9839365
SRF	0.52607775
SRFBP1	0.247262
SRGAP1	2.7759104
SRGAP3	0.46273446
SRGN	3.0422883
SRI	0.89446974
SRL	3.7552526
SRPK2	1.2687883
SRPK3	1.4237773
SRPX	4.950929
SRRM2	1.329279
SRRT	0.62632227
SRSF10	0.67602396
SRSF11	0.9128084
SRSF3	1.0289345
SRSF4	0.24276781
SRSF7	0.590538
SS18	0.34434748
SSB	1.3053427
SSBP2	0.21665859
SSH2	1.2935119
SSH3	0.5796304
SSPN	1.7931533
ST14	2.8108578
ST3GAL1	0.6521025
ST3GAL2	2.4500127
ST3GAL6	3.2517638
ST6GALNAC1	1.5341692
ST6GALNAC2	3.8219848
ST6GALNAC5	2.2075992
ST8SIA1	1.089792
ST8SIA4	1.9146438
ST8SIA6	1.9811893
STAC	0.37127233
STAG1	0.209826

STAG2	0.7252712
STAM	0.46688318
STAM2	1.0439949
STAMBPL1	0.6750097
STAP1	1.7338881
STAR	0.23302221
STARD13	0.6431508
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STARD3NL	0.62155867
STARD6	0.4254992
STARD8	0.58276796
STAT1	0.62836695
STAT3	0.8424425
STAT4	2.2619848
STAU2	0.27547956
STC2	0.5888736
STEAP1	3.8926423
STFA1	6.305588
STFA2	5.5144706
STFA2L1	6.0736046
STFA3	6.429322
STIL	0.66567326
STK10	1.053586
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STK19	0.16534996
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STK3	0.7081084
STK32A	0.96453595
STK33	5.8739533
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STK39	1.2963347
STK4	1.0910583
STK40	0.27798176
STMN2	3.3237762
STMN4	1.3680801
STMND1	2.7360876
STON1	1.9879708
STRA6	2.78814
STRADA	0.62690926
STRIP2	2.5587559
STRN	1.273814
STRN3	0.63639116
STX11	3.636796
STX12	0.81426096

STX16	0.91084194
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STX3	1.2694983
STX6	1.4961057
STX7	1.0419564
STXBP1	2.2906318
STXBP3A	0.55166864
STXBP3B	1.4542279
STXBP5	0.69432306
STYX	1.2545757
STYXL1	2.788841
SUCO	1.451539
SUFU	0.7236111
SUGP2	0.3132496
SULF1	2.8177867
SULF2	0.16092539
SULT2B1	1.3995173
SUMO1	0.38395834
SUMO2	0.33246994
SUN1	0.5653391
SUPT20	0.29198575
SUSD2	1.0710418
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SUSD4	5.040219
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SUV39H1	1.853116
SUV420H1	1.0027084
SVEP1	3.2529683
SVIL	1.4627357
SWAP70	1.3671279
SWT1	0.59916687
SYDE1	1.8119135
SYF2	1.3955865
SYK	2.0052514
SYN2	2.089811
SYN3	0.41163468
SYNC	2.182991
SYNCRIP	0.7604456
SYNE1	2.2783427
SYNE2	1.3978629
SYNGR1	2.5080562
SYNJ1	1.3173022
SYNM	3.7112541
SYNPO	2.1946392
SYNPO2	2.8434281

SYNRG	0.5071058
SYT11	2.1184201
SYT13	4.0347557
SYT15	0.68123865
SYT5	5.222079
SYTL2	2.0603137
SYTL3	1.9412942
T2	3.6358478
TAB2	0.34160948
TACC1	1.4061165
TACR2	0.3151393
TACSTD2	2.1968966
TAF1	1.7299528
TAF1C	0.30359173
TAF1D	0.66026115
TAF3	0.8108201
TAF5	0.5725572
TAF7	1.1247337
TAF7L	0.8712292
TAF8	0.88134766
TAF9B	2.3712404
TAGAP	2.1010413
TAGAP1	1.2462978
TAGLN	1.32198
TAGLN2	2.0207329
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TANC1	1.5543118
TANC2	1.969806
TANGO6	0.35024
TANK	1.7065587
TAOK1	1.3204751
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TASP1	0.68871593
TAX1BP1	0.84463835
TAX1BP3	0.39791727
TBC1D1	0.40587473
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TBC1D10C	1.0663757
TBC1D12	1.0343037
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TBC1D22B	0.51779556
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TBC1D4	0.92862654
TBC1D5	1.5746298
TBC1D8	2.2812598
TBC1D9	0.8266704
TBCK	0.78915477
TBK1	1.1977406
TBKBP1	0.7923789
TBPL1	0.7009449
TBX1	6.8795447
TBX2	2.013599
TBX21	1.846847
TBX22	1.4749739
TBX3	0.99094486
TBX4	7.7283225
TBX5	7.2882733
TBX6	0.5116956
TC2N	2.796216
TCAP	6.623627
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TCEAL3	1.401717
TCEAL6	3.684628
TCEAL7	1.8774867
TCEAL8	0.42838144
TCERG1	0.6921234
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TCF21	2.3593345
TCF23	1.5814164
TCF4	2.3739147
TCF7	0.77908754
TCHH	3.5976286
TCHP	0.44760132
TCOF1	1.1587014
TCP10B	0.6226902
TCP10C	0.8977308
TCP11	3.1089172
TCP11L2	0.3223033
TCRG-V1	0.48603392
TCSTV3	2.367711
TCTE1	0.47061396
TCTEX1D2	0.9611621
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TCTN2	1.2729464
TCTN3	1.4335473
TDGF1	0.8681078
TDRD3	0.80872726
TDRD5	0.6236086
TDRD7	0.32672596
TEAD1	2.3049235
TEAD2	1.2939343
TEAD3	1.1692545
TEAD4	4.1546583
TECPR1	1.2489219
TECRL	3.3458395
TEK	0.8382416
TEKT1	7.1225796
TEKT2	1.0418382
TEKT4	2.6494002
TEN1	1.3510718
TENC1	1.0329356
TERC	1.7224302
TERF2	0.5737262
TES	3.5759754
TESC	1.6465282
TESCL	1.7433822
TESK1	0.48755932
TESPA1	1.8412313
TET2	1.1763792
TET3	0.40145397
TEX11	1.1169448
TEX15	1.1365921
TEX26	3.2875571
TEX9	0.72509694
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TFDP2	1.0157995
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TFF2	3.958486
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TGFB2	4.083831
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TGFBI	0.3842411
TGFBR1	0.7626753
TGFBR2	1.3231001
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TGIF2	1.0661192

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THEMIS	1.64146
THG1L	0.9859779
THOC2	0.8881273
THSD4	3.741777
THSD7A	1.309977
THY1	0.95714283
TIA1	0.76963735
TIAM1	1.4914551
TIAM2	2.592005
TICRR	0.5961714
TIE1	0.6710334
TIFA	0.4468813
TIFAB	0.9892218
TIGD3	0.5770979
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TIMELESS	2.0811896
TIMP1	3.9239988
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TIMP3	5.1865025
TIMP4	2.9066992
TINAG	4.9603324
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TIPARP	2.5153494
TJAP1	0.4033804
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TJP2	1.5839572
TLE1	0.55129576
TLE3	1.4297347
TLE4	0.93212366
TLE6	0.2103653
TLK2	0.6537514
TLL1	0.936085
TLN1	0.89700556
TLR13	1.1381383
TLR2	2.857677
TLR4	1.987256
TLR6	1.3309684
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TMC4	3.0655327
TMC5	2.1552875
TMC7	0.6878958
TMCC2	2.9454098
TMCC3	1.3804555
TMCO3	1.116261
TMED8	1.616252
TMEFF1	3.2418761
TMEFF2	0.9023106
TMEM100	6.0009303
TMEM107	1.4015827
TMEM109	0.8487959
TMEM116	3.6499949
TMEM117	2.4096615
TMEM119	1.9957037
TMEM123	1.2420688
TMEM128	0.39649868
TMEM132A	0.83451414
TMEM132C	4.780963
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TMEM136	0.66604614
TMEM139	1.0552607
TMEM140	0.87501717
TMEM154	2.6801205
TMEM159	2.919394
TMEM164	0.7859893
TMEM165	1.3047543
TMEM170B	0.7770395
TMEM171	1.114244
TMEM173	1.99653
TMEM178	2.5488095
TMEM181A	0.8977709
TMEM181B-f	3.9029617
TMEM184B	0.70857334
TMEM189	0.23938823
TMEM194B	0.71578836
TMEM198	0.9583051
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TRAF3IP1	0.5405514
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TRAF3IP3	0.5061841
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TSPO	0.3884368
TSPO2	0.6097374
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TTL	0.7255807
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TUBB1	1.1339264
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TUFT1	0.65849686
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TWIST2	2.1706924
TXK	1.896122
TXLNB	4.3855815
TXNIP	1.4763746
TXNRD3	1.8239827
TYMS	0.8654821
TYRO3	2.0212946
TYROBP	0.7859931
TYW3	1.0610425
UACA	1.0288591
UBA2	0.34572268

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UBALD2	0.51521444
UBASH3A	0.38602543
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UBD	0.63221073
UBE2B	0.33326006
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UBTD2	2.2658105
UBXN10	4.1617227
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UBXN2A	1.0501609
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UBXN7	0.8284116
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UCMA	0.29088068
UCP2	1.214561
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UGCG	1.0527034
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ULBP1	0.8246021
ULK4	1.1661949
UNC13B	2.5554042
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UPF3B	0.32796526
UPK1A	0.6550002

UPK1B	2.6349816
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UPK3B	1.9670577
UPP1	4.2978454
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USP11	1.4233341
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USPL1	0.2663045
UTF1	2.9052346
UTP14A	1.9704123
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VAMP2	0.31387138
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VASP	2.232502
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VEPH1	3.5878756
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VRK1	0.996953
VSIG10	0.89715576
VSIG2	4.258417
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VSNL1	1.7313766
VSTM2A	0.25268006
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VWA1	1.0229335
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VWA5A	0.583302
VWF	3.0755148
WAC	0.43700886
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WDPCP	0.5197091
WDR1	0.99483776
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WSB1	1.5786757

WSCD2	1.7861841
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WWTR1	1.8190026
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YAP1	0.16205835
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ZNFX1	0.58063745
ZNRF1	1.1653929
ZPBP	0.6328945
ZPBP2	0.8774822
ZRANB2	0.44188786
ZRSR2	0.36040807
ZSCAN18	2.2817876
ZSCAN25	1.231415
ZSCAN26	0.37097788
ZSWIM4	0.35605764
ZSWIM6	1.8225579
ZSWIM8	0.3056178
ZUFSP	1.0240841
ZXDB	1.635345
ZYG11B	0.515048
ZYX	0.9059329

ZZZ3

0.22992706

**Mice\_onset\_lung\_DEgenes\_fc****Gene**            **log2Fold change**

A1BG	-8.555922
A1CF	-7.6254063
A3GALT2	-0.2799187
AAAS	-1.6664977
AACS	-2.1116657
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AAED1	-1.8474431
AAGAB	-1.3348379
AAMDC	-2.5179508
AAMP	-1.468214
AANAT	-1.2355244
AAR2	-0.9762707
AARD	-3.0766273
AARS	-1.4256396
AARS2	-1.7737565
AARSD1	-1.258482
AASDH	-1.3080292
AASDHPPT	-1.3125496
AASS	-3.867856
AATF	-0.9698491
ABAT	-6.4116955
ABCA1	-0.2321267
ABCA14	-2.7692475
ABCA2	-2.934729
ABCA3	-0.9189444
ABCA6	-6.6305137
ABCA8A	-3.8970582
ABCA8B	-4.5464764
ABCA9	-2.473921
ABCB10	-1.2065191
ABCB11	-10.187672
ABCB1A	-1.4446754
ABCB4	-5.5032535
ABCB6	-3.8805103
ABCB7	-1.7380159
ABCB8	-1.611412
ABCB9	-0.4564633
ABCC10	-1.3413429
ABCC12	-2.2126508
ABCC2	-5.65816
ABCC3	-2.5171819
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ABCC9	-2.155455
ABCD1	-1.8868787
ABCD2	-4.2326984
ABCD3	-3.1256924
ABCD4	-2.0953732
ABCF2	-0.444551
ABCF3	-0.9076738
ABCG2	-2.627481
ABCG3	-1.6754773
ABCG5	-6.6328917
ABCG8	-6.862006
ABHD1	-4.231255
ABHD11	-1.6371179
ABHD12	-0.6547356
ABHD14A	-1.661017
ABHD14B	-4.6504602
ABHD15	-3.727269
ABHD16A	-1.3020205
ABHD16B	-0.9186652
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ABHD17C	-0.416182
ABHD2	-1.4694963
ABHD4	-0.6158032
ABHD6	-3.6850834
ABHD8	-0.9362321
ABI3	-0.6866827
ABL1	-0.2346706
ABLIM3	-0.2751126
ABT1	-1.1732249
ABTB1	-0.9822631
ABTB2	-0.564425
ACAA1A	-2.1706772
ACAA1B	-6.0395513
ACAA2	-4.339718
ACACA	-2.1160693
ACACB	-5.027814
ACAD10	-3.1772065
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ACAD8	-1.5686302
ACAD9	-1.5042319
ACADL	-1.594039
ACADM	-3.6717138
ACADS	-5.3146524
ACADSB	-0.9649854

ACADVL	-2.9657621
ACAT1	-3.3149633
ACAT2	-4.0307207
ACAT3	-3.8942838
ACBD4	-2.6162724
ACBD5	-2.189314
ACBD6	-2.3589697
ACCS	-1.3226843
ACCSL	-1.0861061
ACD	-0.4623785
ACKR4	-3.096647
ACLY	-2.878932
ACMSD	-6.117151
ACN9	-2.1028998
ACNAT1	-6.587571
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ACO2	-1.4263191
ACOT1	-1.0826883
ACOT12	-5.8785934
ACOT13	-2.9656878
ACOT2	-0.3844845
ACOT3	-7.4303207
ACOT4	-6.546307
ACOT5	-2.0418491
ACOT6	-2.4525168
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ACOX1	-4.019051
ACOX2	-4.4164243
ACP1	-1.5336008
ACP2	-1.5655866
ACP5	-1.1133575
ACP6	-2.7876892
ACPT	-2.871922
ACRBP	-0.4511418
ACSBG2	-1.786551
ACSF2	-0.7793484
ACSF3	-2.6069908
ACSL1	-4.3162003
ACSL3	-1.5159237
ACSL5	-2.9592724
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ACSM1	-3.92912
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ACSM5	-8.168505
ACSS2	-6.1021447
ACSS3	-3.0857046
ACTL10	-3.024538
ACTL6A	-0.8389821
ACTL7B	-1.0034552
ACTL9	-3.391691
ACTN4	-0.1521897
ACTR1B	-0.8274331
ACTR2	-0.470305
ACTR5	-0.5125165
ACTR6	-2.1017423
ACTR8	-1.2179251
ACTRT2	-1.2049823
ACTRT3	-1.6123352
ACVR1C	-1.2700176
ACVR2A	-0.6465271
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ACY1	-4.70238
ACY3	-5.682586
ACYP2	-2.1554658
ADAD1	-1.5752504
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ADAM12	-1.2257264
ADAM18	-1.6936994
ADAM1B	-1.6158657
ADAM21	-0.5230851
ADAM23	-3.2528088
ADAM25	-1.6769786
ADAM26A	-1.4108162
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ADAM32	-2.2009633
ADAM33	-0.6087005
ADAM4	-1.4095278
ADAM6A	-1.0625644
ADAMDEC1	-2.2812152
ADAMTS12	-0.549614
ADAMTS13	-3.9604404
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ADAMTS16	-2.348313
ADAMTS19	-1.1028862
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ADAMTSL1	-0.3175988

ADAP2	-0.3276
ADARB2	-1.9483664
ADAT2	-0.63167
ADCK1	-1.8586388
ADCK2	-1.681809
ADCK3	-5.682584
ADCK4	-0.3791122
ADCK5	-2.304397
ADCY10	-1.2494087
ADCY6	-0.9624
ADCY9	-1.8957057
ADCYAP1	-2.2109778
ADGB	-1.4551632
ADH1	-7.6763725
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ADH5	-3.3281834
ADH7	-1.0349724
ADHFE1	-3.4373112
ADI1	-3.202608
ADIPOR1	-0.7945027
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ADK	-3.5222712
ADNP	-0.2864304
ADO	-0.9428406
ADORA1	-1.7042208
ADPGK	-0.8235269
ADPRHL2	-1.8534865
ADPRM	-0.4571252
ADRA1A	-1.7865486
ADRA1B	-2.9773917
ADRA1D	-0.6498163
ADRA2B	-2.9141362
ADRA2C	-1.6764266
ADRB3	-1.4371495
ADRM1	-1.2248697
ADSL	-0.5392051
ADSS	-0.3009353
ADSSL1	-1.0731897
ADTRP	-4.8724384
AEN	-0.1745877
AES	-1.3096895
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AFM	-6.88386
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AFP	-1.5251589
AGA	-1.2172422
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AGFG2	-1.1921401
AGK	-0.6650796
AGL	-1.6868067
AGMAT	-7.3332553
AGMO	-4.1731505
AGO1	-0.7911201
AGPAT2	-4.3433333
AGPAT3	-2.1556973
AGPAT6	-1.8741632
AGPAT9	-1.3018503
AGT	-4.9034066
AGTR1A	-4.0434175
AGTR1B	-1.636785
AGTR2	-1.9234667
AGXT	-6.8663487
AGXT2	-5.1643004
AHCTF1	-0.6932993
AHCY	-4.1074724
AHCYL1	-1.004046
AHDC1	-0.3345413
AHR	-1.2097411
AHRR	-1.8032601
AHSA1	-0.804884
AHSG	-2.5738506
AIF1	-2.0440478
AIFM1	-2.5574408
AIFM2	-2.1372273
AIFM3	-3.1802087
AIG1	-1.1524134
AIM1	-0.4038286
AIMP1	-0.454237
AIMP2	-0.3513098
AIP	-0.5249376
AIPL1	-1.2749698
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AK2	-2.3368468
AK3	-3.5279622
AK4	-4.9890113
AK5	-0.8578119
AKAP1	-2.7637305

AKAP17B	-0.5784826
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AKIP1	-1.3831358
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AKT2	-0.7412887
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ALDH16A1	-2.7070398
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ALDH9A1	-3.8063483
ALDOB	-3.878439
ALDOC	-2.4826446
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ALG3	-1.7117255
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ALG8	-1.3131683
ALG9	-1.3763547
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ALKBH6	-0.1510968
ALKBH7	-2.0023851
ALS2	-1.9782696
ALS2CL	-0.8111911
ALX1	-1.6536126
AMACR	-4.842181
AMBN	-1.0466664
AMBP	-3.127634
AMBRA1	-0.5828748
AMD2	-0.4411941
AMDHD1	-8.227308
AMDHD2	-0.8592157
AMELX	-1.1016257
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AMFR	-1.7915487
AMH	-1.7553873
AMHR2	-1.7229891
AMIGO1	-1.2344196
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AMMECR1L	-1.1650624
AMN	-1.9381387
AMOT	-2.357671
AMPD2	-1.2686081
AMT	-4.93569
AMY1	-4.9435935
AMY2A5	-4.5241976
AMZ1	-0.7219977
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ANAPC1	-0.3391705
ANAPC10	-0.2289262
ANAPC11	-0.4672318
ANAPC13	-1.5182757
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ANG	-4.028846
ANG2	-4.2595587
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ANGEL1	-1.7615318

ANGEL2	-0.6458902
ANGPTL1	-0.5417132
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ANKAR	-1.7061882
ANKDD1A	-1.6992846
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ANKEF1	-1.1765399
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ANKS6	-0.3461492
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ANPEP	-2.2344007
ANTXR2	-0.6412296
ANXA10	-2.661473
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AP1B1	-1.0945997
AP1G1	-0.5105486
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AP1S1	-1.1010175
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AP3M1	-1.8332615
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AP3S2	-0.4212141
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AP4S1	-0.7397718
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AP5S1	-1.3766298
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APEH	-2.0333214
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APH1A	-1.379631
API5	-0.5571623
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APOA1	-5.9684196
APOA1BP	-2.420999
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APOA4	-3.2281857
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APOE	-2.3241482
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APOL10A	-3.221645
APOL11B	-0.4014931
APOL7A	-6.499874
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APOL9A	-5.1111317
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APOM	-6.568464
APON	-5.4405413
APOO	-1.7334447
APOOL	-1.5512457
APOPT1	-0.7561951
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ARAF	-1.3199353
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ARF1	-0.7547574
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ARFRP1	-0.2664533
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ARID1A	-0.3603101
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ARIH2	-0.3916097
ARL1	-0.6674814
ARL13A	-1.1695089
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ARNTL	-0.4794984
ARNTL2	-0.4705365
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ARPC5L	-0.6545382
ARPP19	-0.4401901
ARR3	-0.9000843
ARRDC3	-0.2882328
ARRDC5	-1.1469479
ARSB	-1.4802248
ARSG	-1.8911371
ARSK	-2.0048172
ART2A-PS	-5.1734076
ART4	-1.3524423
ARV1	-0.224618
ARVCF	-2.894963
ARXES1	-1.3739603
AS3MT	-3.4024534
ASAH1	-0.559782
ASAH2	-1.659693
ASAP3	-0.6632905
ASB13	-2.188902
ASB16	-1.0812759
ASB18	-1.4608216
ASB2	-1.1251178
ASB8	-0.7759824
ASB9	-1.0910437
ASCC1	-1.5420351
ASGR1	-5.885416
ASGR2	-6.2418256
ASH2L	-0.225605
ASIC1	-1.517946
ASIC5	-5.0916147
ASL	-4.358794
ASNSD1	-0.9431806
ASPA	-3.797325
ASPDH	-4.2455077
ASPG	-3.524322
ASPM	-0.7505887
ASPSCR1	-2.1011758
ASS1	-4.4865127
ASTN2	-1.2284651
ASXL2	-0.1791549
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ATAD3A	-1.9936361

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ATCAY	-1.1494355
ATF1	-0.3211703
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ATF6B	-0.554369
ATF7IP2	-1.4911232
ATG10	-0.285614
ATG101	-1.2062459
ATG12	-0.3716641
ATG13	-0.5014896
ATG14	-0.8850341
ATG16L1	-1.0685921
ATG16L2	-1.5816951
ATG2A	-1.6471753
ATG2B	-0.8774328
ATG3	-0.9447112
ATG4A	-1.5985456
ATG4B	-1.4790149
ATG4C	-1.6795025
ATG4D	-1.526434
ATG5	-1.9976993
ATG7	-0.7919197
ATG9B	-0.7302928
ATHL1	-2.0157948
ATIC	-0.782145
ATL2	-2.2274694
ATM	-0.4518299
ATOH7	-3.1034536
ATOH8	-1.4510298
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ATP11C	-2.913218
ATP12A	-2.2976499
ATP13A1	-1.1353946
ATP13A2	-0.7355232
ATP13A5	-0.5288749
ATP1A1	-0.6629996
ATP2B2	-4.608556
ATP4A	-1.695869
ATP4B	-1.5246539
ATP5A1	-1.5414224
ATP5B	-1.8671651
ATP5C1	-2.4078193
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ATP5D	-2.7721362
ATP5E	-2.1601443
ATP5F1	-1.7570071
ATP5G1	-2.3248882
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ATP5G3	-1.9852748
ATP5H	-1.4355698
ATP5J	-1.988955
ATP5J2	-2.104322
ATP5K	-2.2065883
ATP5L	-1.4784522
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ATP5S	-1.1293559
ATP5SL	-1.8676624
ATP6	-1.8996391
ATP6AP2	-0.1324415
ATP6V0B	-1.5166726
ATP6V0C	-0.5192981
ATP6V0D1	-0.4083319
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CLTC	-0.5643807
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CLUAP1	-0.3290482
CLUH	-3.2998862
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CMC2	-2.3883572
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CML2	-6.1057997
CML5	-2.51935
CMPK1	-0.5341339
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CMTM8	-3.0922694
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CNTNAP1	-1.3899043
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DDI1	-1.660522
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DDX19A	-0.8181915
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DGKZ	-1.1957498
DGUOK	-1.2021747
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DHRS1	-3.1649942
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DLST	-1.3503351
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EPX	-5.165098
EPYC	-1.1147618
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ERAS	-1.3848042
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ERC1	-0.2676895
ERC2	-0.4219623
ERCC3	-0.7836585
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ESD	-1.4843183
ESP1	-2.6855862
ESPL1	-0.5661116
ESPN	-2.6426256
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ESR1	-3.532317
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ESX1	-1.3818119
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ETFA	-2.975968
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ETNK2	-5.8520164
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EXO5	-0.765954
EXOC3L	-1.1920736
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EXOSC1	-0.4733861
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FERMT2	-0.5153585
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FGF1	-2.2257223
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PDE1C	-0.9700136
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PDE6A	-0.9956646
PDE6C	-2.376446
PDE6G	-1.0667548
PDE8A	-1.3003917
PDE9A	-1.4216471
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PDHX	-1.1275334
PDIA4	-0.2973342
PDIA5	-1.9394107
PDIA6	-1.2021475
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PDLIM4	-0.5750046
PDP2	-3.0279682
PDPK1	-0.4467149
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PDSS1	-0.5574069
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PDXK	-1.8997092
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PDZD9	-1.1401145
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PEG12	-0.5616491
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PELI3	-2.2651675
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PELP1	-0.730454
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PEO1	-2.877186
PEPD	-2.2557015
PER2	-0.5744972
PER3	-2.1403193
PERP	-2.1551328
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PET112	-3.710955
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PEX10	-1.3599572
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PRL2C5	-5.807377
PRL3A1	-1.5405314
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PRL4A1	-2.0457404
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PTS	-2.1235662
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PVRL2	-0.7789426
PVRL3	-0.2339993
PWP2	-0.5942478
PXMP2	-5.5167484
PXMP4	-3.7784748
PXT1	-0.6614323

PXYLP1	-2.2192936
PYCRL	-2.9891744
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PYGL	-2.3881197
PYROXD1	-0.4415009
PYROXD2	-4.936965
PYURF	-3.0169108
PZP	-1.9980564
QARS	-0.5893722
QDPR	-4.894441
QPCT	-2.7011738
QPCTL	-0.8076105
QPRT	-5.576355
QRFP	-0.7110992
QRFPR	-1.5656672
QRICH2	-1.2411077
QRSL1	-0.7529488
QSOX1	-1.541132
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R3HDM1	-0.1596708
R3HDM2	-0.7171154
R3HDML	-0.8964043
RAB1	-0.3099566
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RAD21L	-1.8475585
RAD23A	-0.9914963
RAD23B	-0.4138002
RAD50	-0.3798533
RAD51	-0.7849245
RAD51AP1	-0.4128594
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RAET1A	-5.174647
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RANGAP1	-0.3377709
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RBFOX2	-0.6782675
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RELN	-2.7050872
REM1	-0.3602753
REM2	-2.1132972
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RFXAP	-1.174233
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RNASEH1	-0.5481892
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ROMO1	-1.673409
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ROS1	-3.2845626
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RPAP1	-1.3705807
RPAP2	-1.3427396
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TSACC	-0.9175191
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TSEN15	-0.6843572
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TSFM	-1.3855939
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TXN2	-2.2895355
TXNDC12	-1.2529259
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TYK2	-0.9068298
TYMP	-4.5362344
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UGDH	-1.9009099
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USH2A	-1.4901569
USHBP1	-2.3006978
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BDP1	1.1326938
BEAN1	5.274341
BEGAIN	2.906215
BEND4	0.7625394
BEND5	1.842613
BEND7	1.4924805
BEX1	1.5954494
BEX2	2.9850297
BEX4	2.574306

BFSP1	1.9639428
BFSP2	1.6615
BGLAP2	2.003771
BGLAP3	2.238791
BGN	0.6709571
BHLHA15	2.3194995
BHLHE22	1.8763673
BICC1	0.9781232
BICD1	2.7220924
BICD2	1.0506835
BIK	0.19964552
BIRC3	3.071001
BLNK	2.9537716
BLZF1	0.71276426
BMF	2.975359
BMP2K	1.6128349
BMP3	3.3873382
BMP4	2.1029367
BMP5	1.1418114
BMP6	1.0622997
BMPER	2.035358
BMPR1B	2.305198
BMPR2	3.249743
BMS1	1.533349
BMX	2.6290512
BNC2	1.4459596
BNIPL	1.571778
BOC	3.3505723
BORA	1.7843876
BPIFA1	10.922149
BPIFA5	1.9994073
BPIFB1	8.000013
BPIFB5	4.4994617
BPTF	0.32100058
BRAF	0.95715284
BRD1	1.7136269
BRD2	0.6956892
BRD4	0.3335948
BRD8	1.8780925
BRD9	0.20619678
BRINP1	3.0697105
BRIX1	0.6402807
BRMS1L	0.8657789
BROX	0.22849274
BRPF1	0.7928996

BRPF3	0.1758995
BRSK1	1.9667923
BRWD1	0.62532663
BRWD3	0.15591598
BSPRY	2.9231133
BST1	4.2825694
BTAF1	0.6142974
BTBD10	1.2195215
BTBD11	1.6974478
BTBD17	1.9855504
BTBD19	0.7910805
BTBD7	1.1459227
BTG1	0.70843744
BTG2	1.9948053
BTG3	3.4110565
BTK	1.0940089
BTLA	2.5660496
BVES	3.662264
BZW2	1.7309246
C1GALT1	0.36894083
C1QTNF7	2.2602978
C2CD3	0.77960587
C2CD4A	3.2541509
C2CD4B	7.4819803
C3AR1	1.1707668
C5AR1	2.8329628
C7	3.9511352
CAB39	0.41304207
CABYR	1.7443819
CACHD1	1.6687093
CACNA1C	3.2129717
CACNA1D	2.0253427
CACNA1S	1.910387
CACNA2D1	3.4146247
CACNA2D2	0.56573534
CACNA2D4	1.4144635
CACNB1	0.45416355
CACNB3	1.6161375
CAD	1.8777761
CALCA	6.058815
CALCR	2.9135382
CALCRL	1.7199621
CALM1	0.3385439
CALM4	4.4943476
CALML3	4.139661

CAMK1G	0.55746436
CAMK2B	0.19525313
CAMK2D	1.714241
CAMK4	1.8737667
CAMKK1	2.1027699
CAMKK2	0.6804576
CAMP	1.5941138
CAMSAP1	1.3944097
CAMSAP2	1.947633
CAMTA1	3.5590281
CANT1	0.24240708
CAP1	0.9168267
CAP2	2.555084
CAPG	2.7278523
CAPN1	0.48457336
CAPN13	2.968843
CAPN2	0.38370037
CAPN3	0.40033007
CAPNS2	1.9179482
CAPS2	2.261496
CAPSL	2.6487556
CAPZA2	0.3331933
CAR12	3.704955
CAR13	4.3833513
CAR15	0.32285643
CAR4	0.6754365
CAR9	0.20292592
CARD11	1.2655902
CARD14	1.5869431
CARTPT	0.71007824
CASC1	4.0699186
CASC3	0.1830287
CASC4	1.1221623
CASC5	1.1374378
CASK	0.48916292
CASKIN2	0.49213982
CASP1	0.5162144
CASP14	1.6616962
CASP2	0.9110527
CASP4	2.8428035
CASP8AP2	0.99732256
CASQ2	2.4086127
CAST	0.5585551
CASZ1	3.6035821
CAV1	2.2938156

CAV2	2.4731584
CAV3	5.5553417
CBFB	1.1386418
CBL	2.7272897
CBLB	1.9600844
CBR2	9.680853
CBR3	2.443677
CC2D1B	0.169168
CCBE1	0.6477227
CCDC102A	1.5376382
CCDC103	1.5734601
CCDC108	1.6236379
CCDC109B	1.9686408
CCDC11	4.8027945
CCDC113	6.4918284
CCDC114	0.4096527
CCDC115	0.24320412
CCDC120	1.6253538
CCDC121	2.7172954
CCDC122	0.42529607
CCDC127	0.25037003
CCDC129	0.36143517
CCDC13	2.5430412
CCDC134	0.67078114
CCDC135	1.5835619
CCDC136	1.1635847
CCDC146	0.616555
CCDC147	3.0573192
CCDC15	1.4245679
CCDC150	2.2923582
CCDC153	6.6003847
CCDC155	1.3968811
CCDC160	1.362072
CCDC17	1.1630921
CCDC170	3.3650217
CCDC173	2.3109326
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CCDC176	1.2464108
CCDC181	1.3969383
CCDC184	2.4858336
CCDC19	5.78708
CCDC30	1.2102933
CCDC33	2.1596456
CCDC37	1.8390851
CCDC39	3.1718075

CCDC40	1.8455067
CCDC55	0.25490165
CCDC59	0.893518
CCDC64B	3.3616867
CCDC65	2.485494
CCDC66	0.62846947
CCDC67	1.222333
CCDC69	0.56898737
CCDC71L	0.97746706
CCDC77	0.52687883
CCDC78	3.4403012
CCDC81	3.5820189
CCDC85A	2.517708
CCDC88A	2.3118846
CCDC88B	1.5520749
CCDC88C	0.41129756
CCDC9	0.9892726
CCDC92	3.195003
CCKAR	5.0054755
CCL11	5.5829077
CCL12	3.6947422
CCL17	8.273239
CCL19	0.84732723
CCL2	4.757485
CCL3	6.53883
CCL4	5.2205024
CCL5	1.4234304
CCL6	1.2765617
CCL7	4.9070687
CCL8	1.6231565
CCM2L	1.3715711
CCNA1	2.1713903
CCND2	2.3981524
CCNG2	0.35839343
CCNJ	1.1068811
CCNJL	2.2190433
CCNL1	1.797184
CCNO	2.670817
CCNT1	0.35364914
CCNYL1	1.1431761
CCP110	1.616705
CCR10	0.8565016
CCR1L1	0.67022014
CCR6	3.0095925
CCR7	5.3706584

CCR8	1.2829981
CCR9	1.0606472
CCRL2	5.0130606
CCRN4L	0.35151386
CCSER1	0.8423929
CCSER2	0.31437254
CD101	0.5733988
CD109	0.87665606
CD14	3.3234658
CD163L1	2.08489
CD164L2	1.9889913
CD177	4.6263504
CD19	2.063467
CD2	1.8432856
CD200	5.6900983
CD209D	0.6984861
CD24A	4.82396
CD274	2.644576
CD28	1.5925064
CD300A	0.37654948
CD300LF	2.9811935
CD33	5.4307203
CD34	3.710321
CD36	0.7510772
CD37	0.88880587
CD3D	0.7945304
CD3EAP	0.5718055
CD3G	0.23918581
CD40	2.668353
CD44	1.7616911
CD46	0.6207979
CD47	0.16135263
CD5	0.42009068
CD52	0.6535735
CD53	2.5473537
CD55	0.6472006
CD6	1.4332328
CD63	1.6983638
CD68	0.5078788
CD69	4.6417212
CD70	1.0856862
CD72	0.28123522
CD79A	1.8077974
CD79B	1.3902636
CD80	0.8098655

CD83	1.1627526
CD84	0.22798824
CD8B1	1.2814999
CD9	1.390902
CD93	3.3717046
CD97	0.68383884
CDC14A	1.4707177
CDC20B	0.21168661
CDC25B	1.4985504
CDC27	0.27277517
CDC40	0.8685832
CDC42BPA	1.2503409
CDC42BPG	0.5696969
CDC42EP2	1.2762041
CDC42EP3	1.8976665
CDC42EP4	1.2096
CDC42SE1	0.9108987
CDC42SE2	1.2562613
CDC45	0.7477288
CDC5L	0.8384385
CDC73	0.46525002
CDCA4	0.64884186
CDCA7	0.9401078
CDCP1	1.9657607
CDH1	1.7390733
CDH11	0.5327196
CDH13	0.37985468
CDH15	2.198609
CDH16	4.95654
CDH22	2.07887
CDH5	2.4326844
CDH6	0.6018317
CDHR1	1.4401324
CDHR3	3.1101274
CDHR4	4.6430793
CDK11B	0.19212723
CDK12	0.5786009
CDK14	1.9092455
CDK19	0.44666433
CDK2	0.14747453
CDK5R1	0.9398625
CDKL1	0.89513874
CDKL2	1.3827043
CDKL3	1.0263546
CDKL4	1.2112346



CDKN1A	1.4450531
CDKN1B	0.665205
CDKN2B	5.3669114
CDKN2D	1.6419034
CDNF	1.0107567
CDON	0.6535089
CDPF1	0.16673756
CDR2	1.0783377
CDR2L	1.6421733
CDS1	3.6804047
CDSN	3.757984
CDYL	0.44758224
CDYL2	1.4177272
CEACAM10	5.8022757
CEACAM16	1.5498984
CEBPB	0.39219904
CEBPD	4.6307645
CEBPE	0.49688435
CECR2	0.600615
CEL	0.6866791
CELF2	1.2028112
CELF4	0.96582556
CELSR2	0.8347733
CELSR3	4.5369973
CEMIP	2.0549395
CENPB	0.4725976
CENPC1	0.17827415
CENPE	0.22523165
CENPT	0.27082014
CENPU	0.5200627
CEP104	0.79311705
CEP112	0.95375943
CEP112OS2	0.4197123
CEP120	1.2543552
CEP128	0.599025
CEP135	0.61860085
CEP162	0.53723717
CEP170	1.2673423
CEP192	0.40978575
CEP290	0.9837284
CEP55	1.230685
CEP70	0.8594413
CEP83	0.81804466
CERCAM	0.90995383
CERK	2.1451297

CERS3	2.239508
CERS4	1.1164756
CERS5	1.5931201
CERS6	0.95716524
CETN3	0.31674957
CETN4	1.8919706
CFD	4.8568244
CFL1	0.43809414
CFLAR	1.3001046
CFTR	0.4792502
CGN	0.86172104
CGNL1	0.27628803
CH25H	7.183262
CHAC1	2.5051117
CHAD	4.531857
CHAMP1	0.92563415
CHD1	0.89768934
CHD2	1.9298482
CHD3OS	0.97828746
CHD5	1.1835208
CHD6	0.8503401
CHD7	1.1162691
CHEK1	1.2329934
CHGB	1.7545896
CHIA1	8.181061
CHIC1	0.46574068
CHIC2	1.405057
CHIL1	3.880999
CHIL3	5.754044
CHIL4	5.5571346
CHIL5	2.6596828
CHIL6	1.0056129
CHIT1	2.7802808
CHL1	4.936417
CHML	1.2541208
CHMP4B	0.13383579
CHMP4C	1.1182597
CHN1	1.8133221
CHPF	1.8613477
CHRD2	0.8936224
CHRM2	3.0229192
CHRM3	3.3297048
CHRNA1	0.531245
CHRNA10	2.1309383
CHRNA7	1.9779456

CHRN1	3.2440066
CHRN4	0.34744787
CHST1	5.5949564
CHST10	0.96929693
CHST11	4.990838
CHST12	1.9769082
CHST14	0.24623299
CHST3	1.8928556
CHST5	1.2257805
CHST8	3.1778116
CHSY1	1.1518989
CHTOP	0.24454975
CIDEA	4.5570297
CIDEC	2.4243078
CILP	1.452029
CIRBP	0.5397525
CISH	1.7294979
CITED1	2.424097
CITED4	0.73223114
CIZ1	0.40552473
CKAP4	1.6467898
CKAP5	0.54557705
CKLF	1.3205361
CKM	5.1026435
CKMT1	0.9910264
CKMT2	6.6989856
CKS2	1.3774397
CLASP1	0.31044292
CLASP2	0.19679451
CLASRP	0.19547749
CLCA3	6.1837773
CLCA4	4.3555346
CLCN5	0.5170121
CLCN6	0.3389485
CLCNKA	3.352077
CLCNKB	0.96071434
CLDN10	5.7931757
CLDN18	1.3436415
CLDN22	3.7501366
CLDN25	0.74938107
CLDN4	0.88523173
CLDN5	4.118408
CLDN7	4.5328107
CLDN8	0.6912329
CLEC2I	1.5643034

CLEC3B	0.23456502
CLEC4A1	1.2584391
CLEC4A4	1.5553758
CLEC4B1	0.30899668
CLEC4D	5.47831
CLEC4E	4.3590746
CLEC4N	0.16646624
CLEC5A	0.866091
CLGN	0.6017926
CLIC1	1.6322613
CLIC3	5.881249
CLIC4	2.8400292
CLIC5	4.494842
CLIC6	6.652522
CLIP1	0.99424314
CLIP2	1.2785745
CLIP3	2.4356375
CLIP4	5.933529
CLK1	0.51336575
CLK2	0.57261944
CLMP	2.8603787
CLNK	2.6157265
CLOCK	0.17567301
CLSTN1	1.8436241
CLSTN2	2.4245353
CLTB	0.71789885
CMIP	1.0427198
CMKLR1	1.4992054
CMPK2	0.6162143
CMTM2A	0.6247802
CMTM3	0.41342068
CMTM7	0.16028261
CMYA5	1.6536436
CNBD2	0.93428683
CNEP1R1	0.40834236
CNFN	6.4835863
CNGA2	2.1609383
CNIH2	0.19697833
CNIH4	0.7816324
CNKSR1	2.8489976
CNN1	4.9828286
CNN2	1.3571105
CNR1	1.6184568
CNRIP1	0.19802761
CNTLN	0.31700087

CNTN1	3.7303617
CNTRL	1.3312492
COG3	0.6412649
COG5	1.1174867
COG7	0.45792246
COL13A1	1.2725544
COL17A1	0.90927386
COL1A1	0.8451123
COL1A2	0.92870426
COL23A1	4.0986013
COL26A1	0.7831056
COL4A1	3.485456
COL4A2	3.1843548
COL4A3	3.5774088
COL4A4	1.5852437
COL4A5	1.5017471
COL4A6	0.99782467
COL5A2	0.65350795
COL6A1	2.4246302
COL6A2	1.3582196
COL7A1	2.5420294
COL8A2	0.57147074
COLQ	0.5436468
COMP	1.6020968
COQ10B	0.3890624
CORO1A	1.295774
CORO2A	1.676475
COTL1	0.54456425
COX4I2	1.2531247
COX6A2	6.1593204
COX7A1	0.5115533
COX8B	7.2794237
CPA3	2.5612206
CPD	1.91225
CPE	4.2104187
CPEB1	1.6113124
CPEB4	1.1997147
CPM	1.4794192
CPNE1	0.51383924
CPNE2	0.5458536
CPNE5	0.9371314
CPNE7	2.281767
CPNE8	1.6859794
CPSF2	0.4605217
CPSF6	0.5330181

CPSF7	0.5755248
CPT1B	0.34046578
CPXM1	0.22376108
CRABP2	0.24504185
CRAMP1L	0.61678267
CRCT1	5.215367
CREB1	0.953758
CREB3	0.23549366
CREB3L1	2.7341866
CREB3L2	0.6686063
CREB3L4	1.1809232
CREBL2	1.0230389
CREBRF	1.5788527
CRELD2	0.714643
CREM	0.8491454
CRH	0.47937036
CRHR2	1.5591264
CRIM1	2.1227512
CRIP1	0.4781642
CRISP1	1.0950298
CRISP3	2.8233502
CRISPLD1	0.8282716
CRISPLD2	6.0018287
CRK	0.74908686
CRLF1	4.996998
CRLF2	0.6269026
CRLF3	0.71938705
CRMP1	1.7798634
CRNDE	1.873357
CRTAM	1.0368414
CRY2	0.24657154
CRYAA	1.6519778
CRYAB	1.9682083
CRYBG3	2.577444
CRYZL1	0.31294584
CSDC2	0.29986238
CSF1	1.0551028
CSF2	5.5412235
CSF2RA	1.3021107
CSF2RB	1.2450933
CSF2RB2	0.95553493
CSF3	8.046267
CSF3R	0.99356747
CSGALNACT1	3.609693
CSGALNACT2	1.5204363

CSMD1	1.3604131
CSNK1A1	0.21262932
CSNK1D	0.41595507
CSNK1E	1.5740066
CSNK1G1	0.9012122
CSPG4	4.0293517
CSRNP1	3.7563806
CSRNP3	0.81416774
CSRP1	1.3497181
CST6	2.5759563
CST7	1.2837925
CST8	2.6491768
CSTAD	0.57046175
CSTF2	0.33340406
CTBP2	2.036871
CTBS	0.5999882
CTDP1	0.87746525
CTDSPL	1.0211415
CTDSPL2	0.56725574
CTGF	1.4051666
CTLA2A	4.459965
CTLA2B	3.7224922
CTLA4	2.512858
CTNNA1	1.6428509
CTNNAL1	0.19779062
CTNNB1	1.1639414
CTNND2	0.36662745
CTPS	3.6517568
CTSK	4.3999357
CTSS	0.598156
CTTNBP2NL	3.2830043
CTXN1	1.5404203
CTXN3	2.6771405
CUEDC1	1.024734
CUL3	0.43369055
CUL7	1.3379593
CUX1	0.51067114
CWC22	1.8699756
CWC25	0.17738914
CWC27	1.2528267
CWH43	0.7637129
CX3CL1	4.4861307
CX3CR1	0.9450669
CXCL1	4.8407164
CXCL10	2.8854737

CXCL13	1.6614156
CXCL14	7.74806
CXCL15	8.608767
CXCL16	1.6186166
CXCL17	9.459671
CXCL2	8.005163
CXCL3	6.8541846
CXCL5	9.573448
CXCR1	3.6259289
CXCR2	2.995656
CXCR4	2.9280877
CXCR5	2.146194
CXX1A	0.50634956
CYB561	3.0965843
CYB5R1	0.589756
CYBA	1.075324
CYBB	1.9064674
CYBRD1	1.337338
CYFIP2	2.0215716
CYLD	0.64007664
CYP19A1	1.0287013
CYP1B1	2.6143527
CYP27B1	3.1043828
CYP2S1	5.272146
CYP4B1	3.1571708
CYP4F18	2.1380315
CYPT4	1.4000764
CYR61	2.8100152
CYSTM1	0.8439679
CYTH3	3.1382012
CYTH4	0.5125756
CYTIP	4.1168647
CYTL1	3.6377263
CYYR1	3.982131
DAAM2	1.4254098
DAB2	1.2231922
DAB2IP	0.66550064
DACH1	3.8423562
DACT1	0.5672326
DACT3	0.7968936
DAF2	1.2230177
DAG1	0.61250734
DAGLA	1.84884
DAPL1	2.456394
DAPP1	1.9813213



DAW1	0.797246
DAXX	2.1629348
DAZAP2	0.29705238
DBF4	0.35379124
DBH	4.1688323
DBN1	4.367948
DBNDD1	2.783011
DCBLD1	0.2703042
DCBLD2	0.3343675
DCLK1	1.1925161
DCLK2	2.04671
DCLRE1C	1.9226453
DCP1A	0.3098774
DCP2	1.3601141
DCSTAMP	2.1316977
DCTN1	0.73771334
DCTN6	0.23736143
DCUN1D3	1.3313808
DDIT3	1.18191
DDIT4	2.108601
DDR1	2.7817817
DDR2	2.715528
DDX21	0.7093415
DDX23	0.5961275
DDX24	0.3473177
DDX26B	1.3843794
DDX39B	0.22737074
DDX3X	0.6380415
DDX43	0.6122713
DDX50	0.6143775
DDX55	0.45569372
DDX6	1.3606424
DEDD2	0.58357143
DEF6	1.3457236
DEFB14	2.0498672
DEFB3	2.8454156
DEK	0.28932142
DENND1B	0.841774
DENND1C	0.52888346
DENND3	2.7999816
DENND5A	0.51198816
DEP1	1.3594849
DES	2.219245
DGCR14	0.92470646
DGKA	1.416256

DGKD	0.5166707
DGKE	1.3860915
DGKH	3.7183967
DGKK	1.2747622
DHH	1.438005
DHRS7C	2.9363155
DHRS9	2.2282422
DHX38	0.34468746
DHX40	0.6534333
DHX9	1.9179304
DIAP1	0.90290356
DIAP2	0.60783625
DIAP3	0.3160596
DIEXF	0.36940956
DIMT1	0.42836618
DIO2	9.652472
DIP2A	0.706975
DIP2B	0.45579767
DIRAS2	4.01054
DIS3	0.7115421
DISP2	1.3613477
DKK3	1.767766
DKKL1	1.2978234
DLG5	0.9987216
DLGAP4	0.91085434
DLK1	0.86974597
DLL1	2.4160118
DMBT1	2.2664905
DMKN	5.453204
DMRT2	2.3503942
DMRT3	0.95298624
DMXL1	1.031713
DMXL2	1.138067
DNAAF3	0.4636674
DNAH10	3.0324562
DNAH11	4.142297
DNAH12	2.809088
DNAH2	4.034205
DNAH5	3.9452493
DNAH6	6.061873
DNAH7A	2.0709274
DNAH7B	3.1041949
DNAH8	1.5461068
DNAH9	2.465602
DNAIC2	4.272363

DNAJA4	1.38136
DNAJB13	1.4873986
DNAJB3	3.4263446
DNAJB4	0.25064516
DNAJB5	1.0860071
DNAJB6	0.6603284
DNAJC2	1.0225315
DNAJC21	0.5080147
DNAJC27	1.1463492
DNAJC5	0.29902315
DNAJC5B	1.7924893
DNAJC7	0.3870926
DNALI1	4.5762854
DNASE2A	0.8203993
DNHD1	0.9193196
DNM2	0.23360348
DNM3	1.0003035
DNM3OS	0.98696065
DNMT3BOS	0.5545821
DNMT3L	3.5395665
DNTTIP2	0.45906878
DOC2B	3.556512
DOCK10	1.673655
DOCK11	1.2261362
DOCK2	1.1569562
DOCK5	0.4048009
DOCK9	2.2024713
DOK1	1.0827999
DOK2	0.18289328
DOK3	1.3562422
DOK4	1.526084
DOK7	3.3916028
DONSON	1.1640496
DOPEY1	0.90028405
DPCR1	1.6703572
DPEP1	3.8499856
DPEP2	3.02142
DPH5	0.5291734
DPP10	0.6304188
DPP8	0.6772213
DPT	2.3631687
DPYSL2	1.5059271
DPYSL3	2.9750195
DRAM1	2.7588
DRC1	2.1682858

DROSHA	0.9348221
DSEL	1.3198547
DSG3	0.4623623
DST	1.0159683
DSTN	0.1764059
DSTYK	1.4879174
DTNA	1.6372299
DTX1	1.4066434
DTX2	1.9116006
DTX3	0.9507394
DUOXA1	1.3815567
DUOXA2	1.2095034
DUSP1	3.857088
DUSP11	0.79501605
DUSP13	1.2152278
DUSP14	1.014121
DUSP16	1.2796755
DUSP18	2.1271942
DUSP2	3.9149075
DUSP26	2.9294915
DUSP4	3.2240245
DUSP5	2.79953
DUSP7	1.2820086
DUSP8	3.2829816
DVL3	1.231308
DYDC2	2.4299078
DYNAP	1.5522134
DYNC1H1	0.5500159
DYNC1I2	0.58768797
DYNC1LI1	1.4214706
DYNC1LI2	1.4021964
DYNC2H1	1.3470964
DYNC2LI1	2.9674716
DYNLRB2	8.80906
DYNLT1A	0.78816867
DYNLT1C	1.0337367
DYNLT1F	0.67005396
DYRK3	1.3223963
DYSF	0.25615597
DYX1C1	1.1809108
DZANK1	2.63483
DZIP1	1.6179934
E2F2	0.65682316
E4F1	0.3242545
EAR1	4.0522494

EAR10	3.8875475
EAR12	4.2082705
EAR2	3.9892182
EAR6	2.2070785
EBF1	3.3563814
EBI3	2.363996
EBNA1BP2	0.22906494
ECM2	0.8160243
ECSCR	2.17487
ECT2L	1.9027202
EDIL3	2.524869
EDN1	4.9202104
EDNRA	1.7291737
EEA1	1.2201004
EED	0.29332256
EEF1A2	3.1962636
EEF1E1	1.1183119
EFCAB1	2.3982387
EFCAB10	4.5282474
EFCAB12	1.855454
EFCAB14	0.4938922
EFCAB4A	1.1112347
EFEMP2	0.78975105
EFHB	4.1146836
EFHC1	3.3240995
EFHD2	0.95327425
EFNA4	1.2684247
EFNB1	0.526773
EFNB2	2.3216267
EFNB3	0.27200246
EFR3B	3.887547
EFS	1.0249844
EFTUD2	1.5908709
EGFBP2	0.19810843
EGFL6	2.7183878
EGFL7	0.9178195
EGR1	0.41730022
EGR2	3.9559503
EHBP1L1	0.81090117
EHD1	1.3660254
EHD2	3.2438827
EHD4	1.9289122
EHF	4.300137
EID1	0.93145275
EID2	3.9040122

EIF2AK2	0.8426924
EIF2B2	0.319736
EIF2B3	0.29552364
EIF3C	0.5991993
EIF4A1	0.4107151
EIF4ENIF1	1.2874894
EIF5A2	0.8243532
ELAVL4	0.32562137
ELF1	0.86856365
ELF2	0.62656546
ELF3	2.5801086
ELF4	1.1586041
ELF5	5.431818
ELK4	1.2293129
ELMO2	0.7146597
ELMOD1	3.4171882
ELMSAN1	0.9634919
ELN	1.0540895
ELOVL1	0.1496191
ELOVL4	2.1038587
ELOVL7	1.6380758
EMB	4.255826
EMCN	1.0940475
EMD	0.43854332
EMID1	1.2962017
EMILIN2	2.1258817
EML1	3.585463
EMP1	4.5079474
EMP2	3.5100389
EMP3	1.3537674
ENAH	3.3857625
ENC1	2.355824
ENDOD1	2.0784945
ENDOU	0.60876846
ENG	0.43058062
ENKD1	0.5568061
ENKUR	4.1844397
ENO2	2.7049823
ENO3	1.5834808
ENO4	2.909813
ENPP4	1.0653744
ENTPD1	2.884561
ENTPD3	5.8374615
EOGT	1.3971562
EOMES	0.48299003

EP300	0.40212202
EPAS1	0.8851433
EPB4.1L2	1.6449103
EPB4.1L4A	1.139332
EPC1	0.5452509
EPC2	0.42985106
EPCAM	3.2727299
EPDR1	3.4764965
EPHA2	0.57496643
EPHA4	3.056079
EPHA8	1.8676498
EPHX4	3.7079318
EPN2	1.3484159
EPN3	0.8890171
EPS15	0.5731368
EPS8	1.9411278
EPS8L1	3.5431304
EPS8L3	1.0219197
ERBB2	2.6842203
ERBB2IP	0.5935888
ERCC1	0.87798595
ERCC5	0.251482
EREG	4.437129
ERG	2.450957
ERI1	0.66618633
ERICH1	0.625227
ERICH2	3.0290182
ERICH3	5.4724245
ERO1L	0.39776754
ESAM	2.456534
ESCO1	0.96294737
ESM1	2.0918303
ESR2	0.6966429
ESRP1	3.0489547
ESYT1	0.38986015
ESYT2	0.95545006
ESYT3	3.2532496
ETF1	0.4711547
ETL4	0.43286037
ETNK1	0.38278008
ETS1	1.5334663
ETS2	2.0293736
ETV1	0.6774001
ETV3	3.1949697
ETV5	1.128377

ETV6	0.76832294
EVA1B	0.41902733
EVA1C	3.8473196
EVC2	0.7923207
EVI2A	0.8003874
EVL	0.270689
EVPL	3.6613913
EWSR1	0.6064644
EXOC1	0.26292515
EXOC2	0.7683153
EXOC4	0.19583225
EXOC5	0.49619532
EXOC6B	1.4458432
EYA2	6.1446366
EYA4	1.2231836
EZH1	0.5554161
EZR	2.2270389
F13A1	4.8126597
F2R	2.1768146
F2RL2	0.64329004
F3	4.8698463
FABP12	1.3849623
FABP3	6.6053147
FABP4	3.049491
FADS3	3.185155
FAIM	0.22408009
FAIM3	0.8145304
FAM101B	2.6410878
FAM102B	0.8570647
FAM105A	3.18562
FAM107A	0.7507024
FAM110A	0.6450405
FAM110C	0.8641374
FAM111A	0.4170518
FAM115A	0.42880654
FAM117A	0.22704363
FAM117B	1.2929072
FAM118A	0.25170755
FAM124B	1.9233091
FAM129A	0.6888099
FAM129B	3.0456567
FAM129C	0.29804444
FAM131A	2.352652
FAM132A	0.6434126
FAM132B	1.5082331



FAM133B	1.2688603
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FAM13B	0.20198488
FAM13C	3.7658625
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FAM154B	4.079402
FAM160A1	0.8718219
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FAM162B	3.944257
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FAM167A	1.4605436
FAM168B	0.36259317
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FAM179A	5.407874
FAM179B	0.6450181
FAM183B	6.3541665
FAM188A	0.40233278
FAM189A2	4.054531
FAM196A	0.6926522
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FAM199X	0.9168966
FAM19A5	1.5834615
FAM206A	0.4042225
FAM208A	0.4622078
FAM208B	0.97191334
FAM209	0.43572164
FAM212B	3.6362805
FAM216A	1.1857367
FAM216B	4.7272143
FAM217B	1.4462852
FAM220A	0.3300047
FAM221A	1.5226665
FAM222B	0.23898935
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FAM3B	0.68479824
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FAM49A	0.7110071
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FAM60A	3.6731892
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FAM71F2	3.354558
FAM73A	1.1068163
FAM76A	1.1062894
FAM76B	0.8162937
FAM78B	3.0854611
FAM81B	1.6880338
FAM83E	3.366245
FAM84A	0.37940073
FAM92B	5.123412
FAM98B	0.3893695
FANCA	0.4160552
FANK1	2.5716565
FAP	2.3911748
FAR1	2.3578644
FARP1	1.4838195
FAS	0.19836473
FASL	0.7055867
FAT1	0.38503885
FAT2	0.3941741
FBL	0.4968753
FBLIM1	2.4606376
FBLN1	2.0992432
FBN1	2.0831356
FBP2	3.7770627
FBXL12	0.5189953
FBXL13	1.7816765
FBXL14	0.3191433
FBXL16	2.7391646
FBXL2	0.7737596
FBXL20	0.41846132
FBXL22	0.522135
FBXL3	0.7473254
FBXL5	1.670013
FBXL7	0.27924967
FBXO10	0.47166634
FBXO11	0.16788626
FBXO15	0.34901452
FBXO2	1.6424456
FBXO27	1.3241308
FBXO28	0.48478556

FBXO30	0.26493835
FBXO32	2.2857213
FBXO33	0.7877469
FBXO4	0.7386794
FBXO42	0.7770853
FBXW10	1.5781324
FBXW11	0.23363304
FBXW17	0.9604559
FBXW7	0.64042807
FCER1G	1.4451642
FCER2A	1.3360276
FCGBP	1.5036633
FCGR1	0.32749176
FCGR4	0.9957142
FCHO1	0.7971678
FCHO2	1.0043912
FCHSD1	0.5343375
FCRLA	3.7326226
FCRLB	1.3221247
FCRLS	2.1430602
FEM1B	0.4651289
FEM1C	0.45640612
FEN1	0.61005354
FENDRR	1.9794323
FER1L4	1.8759613
FERMT3	0.43505335
FES	0.4051528
FEV	1.8895912
FFAR2	2.0124774
FFAR4	3.8323135
FGD3	1.3348274
FGD4	1.030623
FGF10	3.1837902
FGF11	0.7123091
FGF18	0.68637276
FGF2	0.1971159
FGF6	0.5836663
FGF7	4.857344
FGFBP1	4.884883
FGFR1	2.98215
FGFR2	0.42812538
FGL2	1.2271276
FGR	0.92225504
FHAD1	1.8003635
FHDC1	3.8122025

FHL1	3.4466448
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FHOD1	0.23450994
FHOD3	2.4154606
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FIGF	0.7428055
FILIP1	1.5017478
FILIP1L	1.0244265
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FIS1	1.1390424
FJX1	2.3537984
FKBP10	1.6595569
FKBP14	0.3380432
FKBP1B	1.6804886
FKBP5	0.6305742
FKBP6	1.9190459
FKTN	1.1594913
FLI1	1.6038933
FLII	0.31004333
FLNA	1.6838555
FLNB	0.73902273
FLNC	4.7369657
FLOT1	0.73463774
FLRT2	1.0538774
FLRT3	4.6914196
FLT1	2.2755814
FLT3	1.539484
FMNL1	1.4265604
FMNL2	2.2069807
FMNL3	0.8271961
FMO2	3.1447654
FMR1	0.84956217
FNBP1	0.37618828
FNBP1L	1.4006634
FNBP4	0.21298313
FNDC1	1.2390842
FNDC3B	0.9556699
FNDC5	1.0496416
FNDC7	2.7539787
FOLH1	0.6252003
FOS	5.324674
FOSB	1.7573829
FOSL1	4.273935

FOSL2	3.4324708
FOXA1	1.2100458
FOXC1	2.4148896
FOXC2	2.914168
FOXF1	4.208596
FOXF2	4.0371914
FOXI2	1.3091402
FOXJ1	4.9119215
FOXJ3	1.4010568
FOXK1	0.51242447
FOXL1	1.3941748
FOXN2	0.50951433
FOXN4	2.6228385
FOXO3	0.8175416
FOXO6	1.7624094
FOXP1	1.8607106
FOXP3	1.5774806
FOXP4	0.22498178
FOXRED2	1.8302236
FPR1	1.436399
FPR2	2.8693657
FPR3	2.091085
FPR-RS6	1.5855772
FRAS1	0.5711398
FRAT2	0.77341604
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FRG1	0.33828974
FRMD4A	0.42243958
FRMD5	2.8925042
FRMD8	0.31178188
FRMPD1	1.6842625
FRY	2.0317407
FRYL	0.79015636
FSCN1	3.3452172
FSCN3	0.8187821
FSD1L	1.7844043
FSIP1	1.4034746
FSTL1	2.6733332
FSTL3	3.5563264
FTSJ3	0.91829157
FUBP1	1.0207171
FUBP3	0.6033273
FUCA2	0.63592005
FUNDC2	0.7324467
FUS	1.1560192

FUT1	1.0685282
FUT11	0.7157669
FUT2	2.049193
FUT4	3.097041
FUT8	0.9180417
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FXD2	0.43607855
FXD3	2.959165
FXD4	4.7741246
FXD5	2.1538343
FXD6	2.2559762
FYB	0.9979601
FYN	1.2369471
FZD1	1.5102377
FZD2	2.5517483
FZD3	3.6816666
FZD4	1.4300737
FZD5	0.8525212
FZD6	1.2374716
FZD9	2.863486
G2E3	1.5054853
G6B	0.69867873
G6PD2	1.5066257
GAB1	1.2292528
GAB2	1.2282534
GABBR1	0.8423016
GABPB1	0.7101774
GABPB2	1.807864
GABRE	0.84850335
GABRP	4.264512
GADD45A	0.70815134
GADD45B	3.2173328
GADD45G	1.7044864
GAL	0.8929455
GALC	0.76833534
GALNT1	1.7152743
GALNT12	1.9200239
GALNT15	5.389184
GALNT16	4.4697046
GALNT18	2.324924
GALNT3	3.1560335
GALNT6	1.8840504
GAN	2.1357827
GAP43	3.3030102
GAPT	0.68684435

GAR1	0.7691865
GARNL3	3.8303914
GARS	0.7792573
GAS2L1	0.8125739
GAS7	2.6577373
GAS8	1.4613366
GATA1	1.0543215
GATA2	4.148496
GATA3	1.6877444
GATAD2B	1.3810344
GATSL2	1.3759308
GBAS	0.68769646
GBP2	1.4681549
GBP3	0.5593929
GBP4	2.2011776
GBP5	3.0563698
GBP7	1.1632304
GBP9	0.85896206
GCA	1.1304791
GCC1	0.3427415
GCNT1	0.68549633
GCNT2	2.2761607
GCSAM	1.1484458
GDA	0.7235451
GDAP10	1.410162
GDE1	0.5913539
GDF9	0.34510326
GDI1	0.25325298
GDNF	5.0612373
GDPD1	4.4028807
GDPD2	8.95665
GDPD5	0.20479345
GEM	2.5719595
GFI1	0.6802659
GFI1B	1.3914192
GFPT1	0.9650693
GFPT2	4.6253614
GFRA4	3.6918297
GGPS1	1.5736566
GGT1	2.3913615
GGT5	0.7122326
GGT7	0.79368305
GGTA1	1.8168647
GHRL	1.1215358
GIF	1.399873

GIMAP1OS	0.810266
GIMAP3	1.1869159
GIMAP4	1.1366167
GIMAP5	2.780367
GIMAP6	1.9739528
GIMAP8	1.4008446
GIPC2	0.9223685
GIT1	1.406424
GJA1	3.8170938
GJA5	1.6149688
GJB3	5.032886
GJB4	1.8913212
GJB6	4.437649
GJC1	2.8498564
GK5	1.5156205
GKN3	0.48772955
GLB1L2	2.6043665
GLCCI1	0.75270987
GLG1	0.61619425
GLI1	0.5549488
GLI3	3.000102
GLIPR1	2.019586
GLIPR2	1.7996273
GLIS3	1.964905
GLS	2.44177
GLTP	0.16578245
GLTSCR1	0.89247155
GLYCAM1	4.344466
GM10021	0.9782336
GM10044	0.7447579
GM10046	1.5943837
GM10065	1.989311
GM10091	2.0198154
GM10099	1.1053965
GM101	1.7644861
GM10183	0.6001699
GM10325	1.8232875
GM10336	0.36040497
GM10354	3.5497396
GM10371	1.3077295
GM10406	2.304168
GM10425	1.1216469
GM10427	0.73397326
GM10537	1.4333827
GM10554	2.0753224



GM10631	0.4047923
GM10634	2.343708
GM10638	0.992275
GM10648	1.3318479
GM10673	2.1103137
GM10674	0.8451958
GM10693	0.8469653
GM10700	1.9945896
GM10731	0.83944225
GM10781	1.3453343
GM10791	2.540862
GM10792	2.11517
GM10796	0.81421447
GM10839	4.373183
GM10847	0.5103016
GM10851	3.7097595
GM10856	0.16232681
GM10866	0.59610844
GM10872	0.3140006
GM1096	1.342246
GM11110	2.0170186
GM11190	1.0467556
GM11346	1.0292401
GM11517	0.7522106
GM11536	2.0088143
GM11627	1.4065688
GM11696	0.6454592
GM11744	1.5199313
GM11938	1.188966
GM11974	0.81199694
GM12250	0.727077
GM12592	1.763377
GM12666	0.48904562
GM12695	0.44059777
GM128	0.14789891
GM1305	1.0120811
GM13154	1.240665
GM13157	0.29181337
GM13212	0.56656694
GM13272	0.8489075
GM13275	0.34058762
GM13298	1.4725332
GM13304	1.7035847
GM13375	0.8704288
GM13391	0.74050283

GM13547	1.5049701
GM13570	1.7647798
GM13889	5.903172
GM13931	0.23763514
GM14010	1.061286
GM14085	1.2173338
GM14420	0.4587667
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GM14858	0.3187468
GM14964	1.1143997
GM15056	3.4213328
GM15348	0.24075031
GM15413	0.49220037
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GM15998	2.709092
GM16340	1.0612068
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GM16500	0.59740686
GM16523	0.4788444
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GM1673	0.7053137
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GM17501	0.47507167
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GM17821	1.1269469
GM1966	2.4449477
GM1987	1.9489446
GM2030	0.41276908
GM2042	1.2966795
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GM20611	1.5627823
GM20767	1.945384
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GM2696	0.697598
GM2701	0.48428202
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GM3099	1.3066096
GM3161	2.8424125
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GM4349	0.7620611
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GM4610	6.421304
GM4759	0.9122441
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GM4884	0.7677398
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GM4956	5.2982993
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GM5115	0.8250854
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GM5176	1.2446241
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GM5396	1.1235733
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IQCK	0.9626341
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IRS2	1.7258911
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NAIP6	0.5756221
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PUM1	0.3874936
PUM2	0.44349337
PURB	0.82912874
PUS3	0.16719341
PUS7	0.2920766
PUS7L	0.23037219
PVALB	0.92695236
PVR	3.8597398
PVRL4	1.8843536

PWWP2A	0.23162103
PWWP2B	0.815238
PXDN	0.33439922
PXN	1.6619797
PYCARD	1.8572445
PYCR2	0.636919
PYDC4	1.4750533
PYGM	3.3119578
PYGO2	0.32314205
PYHIN1	2.0391068
PYY	1.2869751
QK	1.7309871
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RAB12	0.3641305
RAB15	7.5923624
RAB19	0.5856228
RAB20	0.9692826
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RAB27A	4.2224336
RAB27B	2.1878881
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RAB2B	0.706059
RAB31	1.3707786
RAB33A	1.1032817
RAB33B	0.31411648
RAB34	0.4190731
RAB35	0.52359915
RAB37	0.46046543
RAB38	1.0343976
RAB3C	0.97966146
RAB44	4.144387
RAB6A	0.2621627
RAB6B	3.3182032
RAB8B	1.4616966
RAB9B	0.36216307
RABGAP1	0.54146767
RABGAP1L	1.0129042
RABGEF1	0.62326765
RABL2	0.589509
RAC2	1.1675053
RAC3	1.7309184
RACGAP1	0.26365948
RAD18	1.3765459

RADIL	2.638349
RAE1	0.28651285
RAI1	0.5752511
RAI14	1.0397911
RALB	1.3132071
RALBP1	0.7604823
RALGAPA1	1.6914086
RALGAPA2	0.31683636
RALGAPB	0.98612356
RALGDS	2.7891827
RAMP2	0.9354243
RAMP3	6.099728
RANBP2	0.33810902
RANBP9	0.62045383
RAP1A	0.5900388
RAP1B	1.1863432
RAP1GDS1	0.3567338
RAP2A	0.5507288
RAP2B	0.63792396
RAPGEF3	2.1039853
RAPGEF5	3.8785257
RAPGEF6	1.4166679
RAPGEFL1	0.86034393
RARA	0.16391945
RARS	0.75638914
RASA2	2.1330843
RASA3	1.2544241
RASAL3	0.69985104
RASD1	4.785783
RASD2	1.9399908
RASEF	4.161778
RASGEF1A	7.4718394
RASGEF1C	1.7449677
RASGRP3	0.5162301
RASGRP4	0.83943987
RASIP1	4.5453153
RASL10B	0.7189436
RASL11A	1.9676499
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RASL12	5.592711
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RASSF5	0.6223402
RASSF9	4.6792836
RB1	1.279419

RB1CC1	0.3876748
RBAK	0.9772301
RBBP4	0.23604918
RBBP8NL	1.7431285
RBFOX1	2.7742004
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RBM27	1.4554706
RBM28	0.37790823
RBM3	1.0728431
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RBM48	0.7520194
RBM5	0.40725994
RBMS1	1.7251334
RBMS2	1.3736606
RBMS3	2.1914077
RBMX	0.749063
RBMX2	0.55262756
RBMXL1	0.39343643
RBP7	1.9986026
RBPJ	1.3347311
RBPJL	3.519784
RC3H2	0.4087491
RCAN1	0.9919205
RCC2	0.48283863
RCN1	0.5518365
RCOR1	0.23000765
RCSD1	0.55652285
RD3	1.9862907
RECK	1.3552356
RECQL	0.71213484
REEP5	0.6077113
REG3B	5.4499755
REG3G	11.221197
RELA	0.74139357
RELB	2.1321206
RELL1	1.4222655
RELT	1.0461106
REP15	0.60049057
REPS1	0.5877242
RERE	0.6980262
RESP18	2.7680523

REST	1.3096952
RET	1.700979
RETN	2.4018292
RETNLA	7.4446454
RETNLB	2.121073
RETNLG	2.9243197
REV3L	2.5895915
RFTN1	1.6901779
RFTN2	1.1719372
RFX2	1.385412
RFX3	0.73327255
RFX8	2.4877195
RGCC	8.2415085
RGMA	0.5545287
RGMB	1.4321108
RGS1	3.2797594
RGS11	2.286849
RGS12	0.63197994
RGS14	0.9590926
RGS17	2.518822
RGS18	2.2638779
RGS19	1.235362
RGS2	2.4729972
RGS22	1.8127158
RGS4	2.9751468
RGS9	3.5335784
RHBDF1	0.3295169
RHBDF2	1.093895
RHBDL3	2.8382912
RHEBL1	0.9568331
RHOA	0.26532316
RHOB	2.2018342
RHOC	2.6950884
RHOF	2.4531703
RHOG	0.4785881
RHOJ	3.7702818
RHOQ	1.0464225
RHOV	2.2265265
RHOX7	0.2984624
RIC8	0.8024502
RICTOR	0.9284358
RIF1	0.41497755
RIIAD1	1.8906887
RILPL1	1.41078
RILPL2	0.7079239

RIN1	1.0335565
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RIN3	2.1572728
RINL	0.538651
RIOK1	0.9106102
RIPK1	0.6664424
RIPK2	2.5903394
RIPK3	1.5557728
RIPK4	0.52560425
RLF	0.79906607
RLIM	2.4947114
RMRP	1.2808032
RN18S	6.273375
RNASE1	0.35770035
RNASE10	1.3236766
RNASE2A	4.1561236
RNASE2B	1.5820367
RNASEL	1.449224
RND1	1.7811403
RNF111	0.34043312
RNF114	0.26269722
RNF122	1.4147809
RNF144A	1.388782
RNF146	0.9486184
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RNF157	0.6504452
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RNF180	0.3263116
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RNF213	0.63545036
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RNF38	1.070075
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RNF41	0.27362156
RNF6	0.33595562
RNLS	0.6218338
RNMT	1.130486
RNU12	0.35772657
RNU1B6	2.6118875
RNU2-10	2.0872078

ROBO1	0.38479185
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ROCK2	1.7911196
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RP2H	1.0574403
RPGR	1.0572433
RPGRIP1	2.6815171
RPGRIP1L	0.48530412
RPH3AL	0.3906846
RPIA	0.67893887
RPL29	0.41473532
RPL39L	0.50892234
RPL3L	2.9633744
RPRD2	1.2989178
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RPRML	0.5002885
RPS15A-PS6	0.9673171
RPS19	0.26845598
RPS4L	0.1933775
RPS6KA2	2.210785
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RPS6KB1	0.62437916
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RRAGD	1.692208
RRP12	1.3549969
RRP1B	2.0309858
RS5-8S1	2.6410527
RSAD2	1.6093502
RSBN1	0.9325514
RSBN1L	0.7224808
RSL24D1	0.3725462
RSPH1	3.513255
RSPH3A	3.2310705
RSPH9	4.080892
RSPO1	0.5650716
RTDR1	2.9106045
RTKN2	5.0564528
RTN1	0.83467627
RTN2	0.60376453
RTP4	0.71141815
RUFY2	0.41938257

RUFY4	0.46481442
RUNDC3B	1.1284356
RUNX1	4.275058
RUNX1T1	3.122151
RUNX2OS1	2.1759977
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RWDD1	0.18543768
RYBP	1.185236
RYR1	2.3850732
RYR2	2.60393
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S100G	2.1364822
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S1PR1	2.0484815
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SAMD14	1.3054147
SAMD4	1.7983382
SAMD4B	0.8918271
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SAMHD1	1.3201313
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SAPCD1	0.77270126
SART3	0.2786932
SASH1	1.2553158
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SASS6	1.2164114
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SAV1	2.0222344
SBDS	0.28081703
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SCARA5	1.3215866
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SCGB1A1	11.401237
SCGB1C1	5.2214746
SCGB3A1	11.172961
SCGB3A2	7.5824294
SCHIP1	3.1216717
SCIN	3.6459832
SCML4	1.6356575
SCN10A	0.8180063
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SCN3A	0.48849154
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SCN5A	1.1331754
SCN7A	2.5152051
SCNN1A	4.2661824
SCNN1B	5.208856
SCOC	0.2980771
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SCTR	0.63427687
SCUBE1	1.0684335
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SCUBE3	0.76115537
SCX	3.0310426
SDAD1	1.0781107
SDC4	0.3266015
SDCBP	1.6814489
SDCBP2	3.5889187
SDCCAG8	0.5888226
SDK1	0.5461359
SEC1	4.9453177
SEC14L1	1.3660364
SEC14L3	4.2350984
SEC24B	0.6414037
SEC61A2	0.8141577
SECISBP2	0.55780125
SECISBP2L	2.8140898
SECTM1B	3.4813857
SELE	6.237152
SELL	2.9601846

SELP	6.1561007
SELPLG	1.3456335
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SEMA4D	2.0406885
SEMA4F	0.3841691
SEMA5A	4.2541237
SEMA6A	0.32291222
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SEPN1	0.6203046
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SETBP1	2.500367
SETD2	0.37975407
SETD5	1.3025055
SETD7	0.637825
SETX	0.27722788
SF3B4	0.5630202
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SFMBT2	0.87082076
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SH2D1A	0.7789097
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SH3BGR	4.1048384
SH3BGRL3	1.0307794
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SH3GL3	3.3959923

SH3KBP1	2.0464125
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SHC4	0.5642314
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SHISA4	0.45189404
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SIGLECG	1.3054554
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SIK2	0.50405264
SIKE1	0.43316174
SIM2	1.328749
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SIRT1	0.48348427
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SIX1	3.812257
SIX4	3.8651736
SKAP1	0.34837675
SKAP2	1.2936339
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SLAMF9	0.77368593
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SLC10A7	1.8615668
SLC11A2	0.38126945
SLC12A2	1.139288

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SLC13A2	2.8310113
SLC13A4	1.274514
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SLC15A2	2.849791
SLC15A3	1.8300476
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SLC18A3	0.5691011
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SLC28A3	2.6171193
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SLC30A7	0.33629942
SLC31A2	0.5786953

SLC34A2	5.074162
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SLC39A10	2.1080108
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SLC39A8	2.3875914
SLC39A9	0.97342896
SLC3A2	1.0485878
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SLC4A3	1.4798243
SLC4A5	0.85276914
SLC4A8	1.6817107
SLC52A3	4.2693563
SLC5A1	2.7519014
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SLC6A14	4.616393
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SLC6A4	1.565098
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SLC7A1	4.416548
SLC7A10	0.74865365
SLC7A11	4.234845
SLC7A3	3.3218658
SLC7A5	1.9175067
SLC7A6	2.7632341
SLC8A1	1.0359745

SLC9A1	0.8725939
SLC9A4	1.84953
SLCO1A5	1.3492355
SLCO2A1	0.7455578
SLCO3A1	2.4067025
SLCO4A1	3.6831775
SLCO4C1	3.8481584
SLFN1	3.7888412
SLFN10-PS	2.1505322
SLFN2	2.430634
SLFN3	3.9759479
SLFN4	5.9662714
SLFN8	1.6627555
SLIT2	1.076462
SLIT3	3.355969
SLITRK6	0.29260755
SLK	0.7156143
SLMO1	0.8434851
SLN	9.736036
SLPI	1.9433913
SLTM	0.2031231
SLU7	0.38098097
SLURP1	2.3209345
SLX4	0.5107341
SLX4IP	1.0144465
SMAD1	1.6488786
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SMAD5	0.16562796
SMAD6	1.2821164
SMAD7	0.8131881
SMAP1	0.4534731
SMARCA4	0.16677761
SMARCA5-PS	1.3036947
SMARCD3	0.22364902
SMC1A	0.19465399
SMC5	0.5074229
SMCHD1	1.2029524
SMEK2	0.45271206
SMG1	0.44253254
SMIM15	0.48096466
SMIM3	3.3069315
SMIM5	3.7676885
SMOX	2.800736
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SMPX	2.0875473
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SMTN	0.7843962
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SNAP23	0.33603144
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SNHG7	0.26474237
SNN	1.3131847
SNORA74A	1.52847
SNRNP40	0.20462322
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SNTB2	2.3708596
SNTN	3.4306624
SNX1	1.3572073
SNX10	0.6114931
SNX11	0.4939251
SNX13	0.35047388
SNX17	0.5995393
SNX18	1.1205893
SNX20	2.3777208
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SNX25	1.0279722
SNX29	0.9166086
SNX30	0.47254944
SNX6	0.25310993
SOAT1	0.91009283
SOBP	3.0999622
SOCS1	1.6230025
SOCS2	2.1204147
SOCS3	4.0248637
SOCS4	0.41125202
SOCS5	0.782423
SOCS7	0.657146
SOGA1	0.27864838



SON	0.46853876
SORBS3	0.37249756
SORCS2	3.5710993
SORL1	3.03585
SORT1	2.680657
SOS2	0.4980402
SOSTDC1	3.2619832
SOWAHC	0.86135054
SOX10	1.3191242
SOX17	0.84169436
SOX2	3.8747914
SOX4	2.0121493
SOX7	2.9437785
SP100	1.046489
SP140	1.0597267
SP2	1.6127439
SP3OS	0.7601485
SP4	0.899127
SP6	1.82708
SPA17	0.91395545
SPACA6	1.8104525
SPAG1	0.77542853
SPAG16	1.5264153
SPAG17	0.8077071
SPAG6	4.4802322
SPAG9	0.31143856
SPARCL1	4.661193
SPATA1	0.5846894
SPATA13	0.28569603
SPATA17	0.6050918
SPATA18	3.0166392
SPATA31	0.4572935
SPATA31D1B	1.0614641
SPATA6	1.9942579
SPATA7	0.45659828
SPATS2	0.6110444
SPDEF	2.1549544
SPECC1	1.2768025
SPECC1L	1.5260315
SPEER1-PS1	2.5595572
SPEER2	1.1143062
SPEER4B	1.7790828
SPEER4C	3.1074924
SPEER4D	1.6430047
SPEER5-PS1	2.8066304

SPEF1	1.1571703
SPEF2	1.5869856
SPEM1	0.9781897
SPEN	0.2858014
SPERT	0.7993319
SPG21	0.44422722
SPHK1	8.527199
SPI1	1.6046071
SPIB	2.7037516
SPICE1	0.2340765
SPIDR	2.090498
SPIN4	1.6997702
SPINK2	0.84518313
SPINK5	5.9559793
SPINT1	4.2794576
SPIRE1	1.7783229
SPN	1.527298
SPOCK2	5.549729
SPON1	4.088042
SPOPL	0.82161355
SPP1	0.15917444
SPRED1	1.4605398
SPRED2	1.2894292
SPRR1A	0.36727667
SPRR1B	1.6832259
SPRR2B	2.8562236
SPRR2D	9.195426
SPRR2E	2.9325757
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SPRR2H	2.5655794
SPRR2I	6.6363096
SPRR2J-PS	3.7162876
SPRR3	3.79263
SPRTN	0.5269449
SPRY1	2.6193838
SPRY2	2.1336806
SPSB1	1.3673306
SPTAN1	0.464231
SPTB	0.8927927
SPTBN1	2.711038
SPTLC2	1.7305217
SPTY2D1	0.54379463
SRCAP	1.2171922
SRCIN1	2.4923575

SRF	0.5676975
SRFBP1	0.22255993
SRGAP1	2.5428958
SRGN	2.9641466
SRI	0.56572723
SRL	4.6244984
SRPK3	0.8469887
SRPX	3.3923419
SRRM2	1.0637956
SRRT	0.2356062
SRSF10	0.271245
SRSF11	0.7830868
SRSF3	1.0222192
SRSF5	0.36251307
SRSF7	0.39538097
SSB	1.2688689
SSBP2	0.3979864
SSBP4	0.32794
SSH2	1.2592449
SSH3	0.7246094
SSPN	1.3446302
ST14	3.7980766
ST3GAL2	1.742063
ST3GAL6	3.1338978
ST6GALNAC2	1.8393316
ST6GALNAC5	2.6547303
ST8SIA1	1.2738068
ST8SIA4	1.7025814
ST8SIA6	2.852315
STAC2	2.0682576
STAG1	0.37184763
STAG2	0.41453075
STAM	0.6151786
STAM2	1.0407138
STAP1	0.3114488
STAR	0.45800138
STARD13	0.87596893
STARD3NL	0.1442051
STAT1	0.37354946
STAT3	1.1934619
STAT4	2.1863155
STC2	1.6674292
STEAP1	5.0714064
STEAP2	0.50992775
STEAP4	0.28921223

STFA1	4.472617
STFA2	4.473102
STFA2L1	5.3194184
STFA3	5.788344
STIL	0.5656841
STK10	0.7597885
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STK3	0.58242655
STK33	5.171219
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STK39	2.0592566
STK4	0.9083972
STK40	0.24390888
STMN2	1.6379623
STMN4	1.1541066
STMND1	2.3365784
STOML1	0.2575631
STON1	0.8154342
STON2	0.7954831
STRA6	3.7720716
STRIP2	2.8528605
STRN	1.043803
STRN3	0.49952316
STX11	3.0348253
STX12	1.1351619
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STX19	1.0636597
STX3	1.5662236
STX6	1.2363615
STX7	0.7843499
STXBP1	1.6604123
STXBP3A	0.98812675
STXBP3B	1.9954877
STYX	0.80475473
STYXL1	2.6348124
SUCO	1.9836524
SUFU	0.8190932
SULF1	3.0510106
SULF2	0.3206854
SULT2B1	2.1158366
SUN1	0.38954592
SURF6	0.17556763

SUSD2	1.0706053
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SUV39H1	1.9957728
SUV420H1	1.2112737
SUZ12	0.18389797
SVEP1	2.5668945
SVIL	1.0874186
SWAP70	1.3341465
SWT1	0.4253974
SYCE1	0.98659205
SYCN	0.74194884
SYDE1	1.4717216
SYF2	1.4549446
SYK	1.7485085
SYN2	1.9166427
SYNC	2.6918638
SYNCRIP	1.0238423
SYNE1	0.6926038
SYNE2	0.9123869
SYNGR1	2.6679792
SYNJ1	1.254147
SYNM	2.6694956
SYNPO	2.8100023
SYNPO2	2.6655428
SYNRG	0.5249219
SYT11	1.86731
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SYT5	5.4889374
SYTL2	1.0978305
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TAB3	0.44628
TACC1	1.3163891
TACR1	1.318716
TACSTD2	3.44461
TAF1	1.4997368
TAF1D	1.3480635
TAF3	0.88864326
TAF5	0.384614
TAF7	0.8295579
TAF7L	0.7551613
TAF9B	2.1537216
TAGAP	1.6945009

TAGAP1	0.87314034
TAGLN	0.6978326
TAGLN2	1.853991
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TANC1	1.3581281
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TANK	0.93147373
TAOK1	0.9840317
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TAX1BP1	0.9267831
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TBC1D12	1.2755709
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TBC1D8	3.4312491
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TBK1	1.2851996
TBKBP1	0.29672813
TBL1XR1	0.48241282
TBPL1	0.45797396
TBRG1	0.2075715
TBX1	6.9883494
TBX2	2.0175118
TBX22	0.27719665
TBX4	6.9987926
TBX5	6.167051
TBX6	0.29242706
TC2N	3.349247
TCAP	6.586297
TCEAL1	0.5341811
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TCEAL6	3.1751273
TCEAL7	1.5330775

TCEANC2	0.20870686
TCERG1	0.6857867
TCF15	1.1489105
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TCF21	0.88731956
TCF23	3.0688133
TCF4	2.0809965
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TCP10B	0.5485172
TCP10C	0.4770627
TCP11	2.8608854
TCSTV3	0.40663648
TCTE1	0.64498997
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TCTN3	1.5842409
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TEAD1	1.9980583
TEAD3	1.2833841
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TECRL	1.236969
TEK	0.15780067
TEKT1	7.102256
TEKT2	0.41491532
TEKT4	2.2111435
TEN1	1.0079961
TENC1	0.47389793
TEPP	0.83503103
TERC	1.2952597
TERF2	0.53271246
TES	3.6542392
TESCL	0.85499334
TET2	0.9536114
TET3	0.39559126
TEX26	3.327848
TEX30	0.2304802
TEX40	1.2522285
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TFAP2A	1.507108

TFCP2L1	0.80938673
TFDP2	0.8735242
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TGFBR1	0.98875713
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TGIF1	1.0051022
TGIF2	0.86864686
TGM2	1.6620135
TGOLN1	0.24897861
THAP2	0.43477988
THBD	3.8901706
THBS1	6.55743
THBS3	2.6157742
THBS4	3.7257855
THEM5	3.0202086
THG1L	1.2124093
THOC2	0.45070076
THOC6	0.35284615
THRAP3	0.36864662
THSD4	2.8771076
THSD7A	0.9141884
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TICRR	0.4751413
TIFA	1.9953904
TIGD2	0.3737383
TIGIT	3.6209788
TIMELESS	2.4420357
TIMP1	5.9118457
TIMP2	1.9408188
TIMP3	5.539886
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TINAG	2.8176904
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TIPARP	3.0193152
TJP1	1.2872844
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TLE4	0.23465538
TLK2	1.0227175
TLN1	0.5632992
TLR13	1.6094165
TLR2	1.6774573
TLR4	1.5636492
TLR6	1.0308485
TLR7	1.0072207
TLR8	2.4631145
TM4SF1	2.4085293
TM6SF1	0.86693573
TMBIM1	0.79831266
TMC4	3.376832
TMC5	5.080132
TMCC2	1.1830313
TMCC3	2.7301435
TMCO3	1.0309699
TMED8	0.96959925
TMED9	0.24640608
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TMEM100	6.2316413
TMEM107	1.0733151
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TMEM119	4.6363306
TMEM120B	0.30065536
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TMEM151A	0.6172035
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TMEM164	0.49741268
TMEM165	1.0417147
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TMEM181A	1.0759859
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TMEM189	0.4239266
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TMEM200A	1.0553236
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TMF1	0.57706976
TMOD1	4.935547
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TMPRSS11A	1.905236
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TNFAIP1	0.8339672
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TNFAIP3	4.2975836
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TNFRSF10B	2.8815746
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TNFSF11	1.3256779
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TNIP1	2.9197683
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TNKS	1.0745041
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TNKS2	0.38150167
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TNNI3	3.8245807
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TNNT2	6.7358956
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TOM1L2	0.32705402
TOP2A	0.88742733
TOPBP1	0.3415413
TOR3A	0.5877404
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TRAF1	3.8939877
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TRAF3IP2	1.4614625
TRAF6	0.5436778
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TRAK2	1.358283
TRAPPC10	0.320014
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TRAT1	0.6332779
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TRIM10	2.040784

TRIM12A	0.54737806
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TTC28	0.3647666
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TTLL11	1.0701423
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TUBA8	0.92764425
TUBB2B	3.121043
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TUBB4A	0.31021738
TUBB6	1.5189543
TUBG2	0.7347255
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TWIST2	2.1033823
TXK	2.0250626
TXLNB	4.672156
TXNIP	1.266398
TXNRD3	1.8340254
TYRO3	1.8487878
TYROBP	0.20925522
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UBA2	0.22083187
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UBALD2	0.5466614
UBASH3B	1.4440651
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UBE3A	0.2564354
UBE4BOS1	0.54827046
UBL3	0.433949
UBN1	1.3286748
UBN2	0.18606234
UBP1	0.9039159

UBQLN2	0.41133547
UBTD2	1.6509852
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UBXN2A	0.78330374
UBXN7	0.27586293
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UCK2	0.9781585
UCP1	2.4183905
UCP2	1.9773273
UCP3	1.6485
UGGT2	0.39015746
UGT2A1	2.480959
UIMC1	1.9931037
ULK4	0.9554014
UNC13B	2.5561438
UNC13D	0.8875756
UNC45B	1.366107
UNC5B	1.0212293
UNC5C	1.6900063
UNC79	0.5621705
UPF3A	0.1752305
UPF3B	0.32064438
UPK1B	2.2339323
UPK2	2.811908
UPK3BL	2.2248769
UPP1	4.816348
URB2	1.9777226
USP1	0.37528133
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USP31	0.6957078
USP32	0.61516905
USP33	0.26843262
USP34	1.705411
USP36	0.69665766
USP37	1.7095287
USP42	0.2934065
USP43	1.9732442
USP47	0.8174195
USP53	2.3961117
USP54	2.2246923
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**Mice\_onset\_liver\_DEgenes\_fc**

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DGKI	-2.8175712
DGKK	-6.1034184
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DHX37	-0.981859
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DISP1	-0.8699331



DISP2	-4.391842
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DLX6AS2	-1.8609223
DLX6OS1	-4.4544106
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DMRTC1C2	-3.402088
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DNAH17	-4.106693
DNAH3	-1.2301905
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DNAJB8	-4.7765265
DNAJC5G	-1.7226493
DNAJC6	-1.5760136
DNASE1	-5.420412
DNER	-1.7928929
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ERV3	-3.6589303
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EXOC4	-0.8835337
EXOG	-1.2161419
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THEMIS	-3.0552227
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TYMS	-0.961479
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TYW3	-1.7467182
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UNC80	-2.8666427
UNCX	-2.0569894
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USP51	-2.9586258
USP8	-0.6278999
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AU040972	1.4449787
AURKAIP1	1.6840205
AVEN	1.7894983
AVL9	1.7783093
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AZIN1	1.4180493
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B3GALNT2	1.8582177
B3GALT6	1.6160231
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BAG5	1.2422137
BAG6	1.42029
BAHD1	1.0564866
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BAP1	2.526144
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BIN3	1.0105443
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BIRC3	2.724102
BIRC6	1.2058024

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BLOC1S2	0.97629213
BLOC1S4	2.0858655
BLOC1S6	1.4883909
BLZF1	1.870543
BMP2	2.5733528
BMP2K	0.7696996
BMPER	1.2856245
BMS1	1.5489192
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BPTF	0.8099251
BRAF	1.1547842
BRAP	1.4394507
BRAT1	1.1051607
BRCC3	0.89519405
BRD1	1.0039032
BRD2	1.084063
BRD4	0.97093487
BRD7	0.8718281
BRD8	1.5188086
BRE	1.3688269
BRI3	0.98726416
BRI3BP	1.1943822
BRIX1	2.2741408
BRMS1	1.4130545
BROX	1.2333286
BRPF1	1.6469398
BRPF3	1.4055333
BRWD1	0.83552694
BST2	3.4108706
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BTBD1	0.89103365
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CACUL1	2.2708154
CACYBP	2.2348032
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CALU	2.022325
CAMSAP1	1.2773352
CAMSAP3	0.8281584
CAMTA2	2.3200326
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CANX	1.7151651
CAP1	1.377779
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CAPRIN1	1.0372534
CAPZA1	1.9894962
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CAR13	2.5999556
CARHSP1	2.1741314
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CCDC88B	2.469676
CCDC97	1.2681761
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CCRN4L	2.2377234
CCT2	2.0320244
CCT3	2.5132627
CCT4	2.0327616
CCT5	1.525362
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CDC37L1	1.8568087
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CDK9	1.3393927
CDKAL1	1.0686827
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CDKN1B	1.2232575
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CDYL	1.1091893
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CEBPG	2.697423
CEBPZ	2.4776564
CEBPZOS	0.63767576
CECR5	2.8396628
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CENPJ	0.68346643
CENPL	1.717278
CENPO	1.044719
CENPW	0.6470442
CEP120	0.95496917
CEP162	1.1417689

CEP170	1.2396064
CEP170B	1.9218326
CEP350	1.9076447
CEP57	1.1777935
CEP63	1.5075135
CEP95	1.8129544
CEPT1	2.0501719
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CFL2	1.5052915
CFLAR	2.353026
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CH25H	3.922731
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CHCHD1	2.1385608
CHCHD2	2.2291822
CHCHD4	2.3364835
CHCHD6	1.154933
CHD1	1.5902588
CHD2	1.1314182
CHD4	0.9491868
CHD7	2.46459
CHD8	1.6696224
CHD9	0.84771585
CHERP	1.7237868
CHFR	1.3751321
CHIC2	1.9471164
CHIL1	2.4854746
CHKA	2.7545128
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CIAPIN1	2.1927524
CIC	0.9953108
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CKS1B	1.2619829
CLASRP	1.1501613
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CLCN7	1.6316051
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CMIP	1.6214261
CMPK1	1.9490681
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CMTM6	1.3799119
CMTM8	0.79346514
CMTR1	1.932096
CMYA5	1.7499981

CNBP	1.4944363
CNDP2	1.402472
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CNKSR3	2.479186
CNN3	2.0574608
CNNM2	1.4659896
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CNNM4	1.2713051
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CNOT6L	2.1856136
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CNPPD1	1.2490826
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CNR2	0.87910366
COA3	1.3698955
COA5	1.4386406
COG1	0.6716361
COG2	1.9206738
COG4	0.91461515
COIL	1.3204198
COL17A1	1.8492827
COMMD10	1.2046242
COMMD4	1.3484511
COMMD7	1.1939473
COMTD1	1.8723245
COPS2	2.1453037
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COPS7A	1.7300663
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COQ10A	0.81943464
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COQ2	1.6089783
COQ5	2.116664
CORIN	1.117295
CORO1B	1.155643
CORO7	1.0646281
COX11	2.0980768
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COX19	2.0451365
COX2	1.6139269
COX4I1	1.6655965
COX6C	2.096024
COX7A2L	1.0809422
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CRIPT	1.3733821
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CRLF2	1.3836045
CRTC1	0.8152108
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CRYZL1	1.1926966
CSDE1	1.2580643
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CSF1	2.8987136
CSF1R	1.0478721
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CSNK1A1	1.568572
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CSNK2A2	1.3440485
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CSRNP1	3.5877957
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CYB561D2	1.9961042
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CYCS	2.3070683
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CYPT4	2.6388197
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CYTH1	1.433919
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DBNL	1.5606089
DBR1	1.0026531
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DCC	3.539279
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DENND4A	1.9410176
DENND5B	1.4424229
DENND6B	1.5880573
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DESI2	2.3240304
DFFB	1.1254168
DGAT1	1.5044637
DGCR14	1.0040135
DGCR2	0.7702751
DGCR8	1.0322764
DGUOK	1.218586
DHPS	1.1636486
DHRS7B	0.76231766
DHX15	2.4359674
DHX16	1.0981731
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DIAP2	1.0181179
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DIEXF	1.9597063
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DIS3L	1.4159188
DIS3L2	0.90120554
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DMAP1	1.3845501
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DMTF1	2.5382593
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DMWD	1.3614388
DMXL1	1.6969879
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DNAIC1	0.7996187
DNAJA1	2.5282536
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DNAJB1	1.7630978
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DNAJB2	2.4438114
DNAJB6	1.7286439
DNAJC1	1.5133176
DNAJC13	1.8956695
DNAJC15	1.9110937
DNAJC18	1.0468316
DNAJC24	1.2145333
DNAJC30	1.6196184
DNAJC5	1.5690274
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DNM1L	1.2193375
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DOS	1.1435051
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DPCD	0.7247343
DPF2	1.6844115
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DPH7	0.9629619
DPM1	1.537909
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DPP6	1.7014809
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DPY30	0.91723394
DR1	1.8987103
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DSCR3	1.050951
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DST	1.2245326
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DTNBP1	1.6163402
DTX2	1.8946018
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DTYMK	1.2440681
DUS2	2.2019758
DUS3L	1.6336923
DUSP11	1.3256149
DUSP16	2.8392477
DUSP2	3.7428002
DUSP8	2.3393917
DVL1	1.8014717
DVL3	0.8513508
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DXO	1.6411276
DYNC1H1	1.5806093

DYNC1I2	0.91001844
DYNC1LI1	1.0375638
DYNLL2	1.1699781
DYNLRB1	1.2241206
DYNLT3	0.87600803
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E4F1	1.1617112
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EBAG9	1.6496935
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EEF1B2	1.6727209
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EEF2	1.8640308
EFCAB14	1.0738616
EFHD2	1.8048244
EFR3A	1.21596
EFTUD2	1.2546921
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EGLN2	1.343637
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EMG1	2.056386
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EML3	0.6493244
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ENC1	2.9674635
ENO1	1.7510386
ENOX2	0.6305113
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ENPP4	2.2136526
ENSA	0.95215416
ENTHD2	1.9194727
ENY2	2.2807522
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EPB4.1	1.2445965
EPB4.1L3	0.6970539
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EPHA5	1.8861337
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EPM2AIP1	1.1392384
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ERAL1	1.814107
ERAP1	2.095172
ERBB2IP	1.1416659
ERCC2	1.4616175
ERCC3	1.2612972
ERCC4	0.7048478
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ERCC8	1.1310122
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ETNK1	1.1556811
ETS2	2.383676
ETV3	1.463789
ETV6	3.249011
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EXOC3L4	1.4888272
EXOC5	1.3405857
EXOC6	0.6253128
EXOC6B	1.4098353
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EXOSC2	1.8427286
EXOSC3	2.2178068
EXOSC5	1.1760974
EXOSC6	1.5689483
EXOSC7	0.9329982
EXOSC9	1.7577767
EXTL3	1.4365592
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EYA3	2.653934
EZH2	1.2023921
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FAP	2.435192
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FASTKD1	1.6534169
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FAU	1.9461269
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FBRS	1.4430141
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FBXO7	1.7072601
FBXW11	1.6507773
FBXW4	1.1485271
FBXW5	1.6163607
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FBXW8	1.406795
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FCER1G	2.3484263
FCF1	1.6398525
FCGR2B	2.481648
FCHSD2	1.7021418
FDX1	1.8589673
FDX1L	1.7141829
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FERMT2	1.1472912
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FEZ2	1.4992437
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FGD4	1.2308841
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FGFR2	1.1176772
FGFRL1	0.8809571
FGR	1.8545475
FIP1L1	1.5897632
FIS1	1.6599393
FITM2	1.6000986
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FKBP3	1.1889267
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FKRP	1.4609857
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FLNB	2.6495967
FLOT1	2.1487107
FLOT2	1.843926
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FNBP4	1.7120574
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FNIP1	1.7054586
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FOPNL	0.85032845
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FOXC2	1.8997374
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FOXK2	1.6241183
FOXL2	1.5337148
FOXN2	1.7670965
FOXO1	1.2234616
FOXP4	1.7307329
FOXQ1	2.1311731
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FRMD8OS	1.4781404
FRS2	1.0810871
FRYL	1.5351267
FSCN1	2.1114826
FTH1	2.0229979
FUBP1	1.222614
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FUCA1	1.2248702
FUK	1.0052981
FUNDC1	1.2552209
FURIN	2.0634556
FUS	1.2795529
FXR1	1.6904664
FXR2	2.02282
FYB	1.8606043
FZD9	1.972301
FZR1	1.0916471
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GAA	1.2966204
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GABARAP	2.1134315
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GABPB2	0.8478341
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GAK	1.3439412
GALK2	1.2980423
GALNS	1.7637043
GALNT11	1.4247041
GALNT2	0.78974533
GALNT4	0.8851361
GALNT7	1.0572033
GANAB	2.3771129
GAPDH	2.4485188
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GBP5	3.3242822
GBP6	4.1454525
GBP7	2.993876
GBP8	1.5849423
GBP9	2.2511668
GCA	0.88983846
GCC1	1.7411432
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GCM1	2.7314315
GCN1L1	1.3913698
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GDI1	1.0803285
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GGA3	1.7676735
GGCT	2.380005
GGH	0.9387207
GGNBP2	1.5124083
GHDC	1.4407315
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GINM1	1.5513916
GINS3	1.0949364
GIT2	1.0755277
GKAP1	1.1415644
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GLG1	1.3012938

GLIPR2	2.3265772
GLRX	3.0610142
GLRX2	1.679472
GLRX3	1.6015925
GLT8D1	1.5216737
GLTSCR2	0.7533212
GLUL	2.441484
GLYR1	1.7615438
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GM10065	1.5976717
GM10101	0.9125478
GM10134	0.96846056
GM10204	1.3814173
GM10405	1.3447161
GM10420	1.6315022
GM10631	0.93494797
GM10634	4.310249
GM10636	0.91830826
GM10653	1.6712885
GM10693	2.067287
GM10765	1.3351717
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GM10839	1.8763943
GM10845	1.7844143
GM10856	1.2891698
GM10872	3.489748
GM10910	0.8379035
GM10914	1.1590436
GM11127	1.7349725
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GM11449	0.9520135
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GM11559	1.2978003
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GM11810	0.9720826
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GM12250	2.1568942
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GM15998	1.4184008
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GM17821	1.9038982
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GM5176	1.3455477
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GM5637	3.2265925
GM5766	1.9188123
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GM8580	1.8169222
GM8709	2.6300893
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GNL2	2.4232535
GNL3	3.255774
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GOLGA4	2.0541635
GOLGA7	1.411521
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GOLPH3	2.548564
GOLPH3L	1.0804706
GOLT1B	1.4896898
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GORAB	1.5469372
GOSR1	1.8052282
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GPAA1	1.1720848
GPATCH11	1.4976006
GPATCH2L	1.6501384
GPBP1	1.4755454
GPBP1L1	0.8472433
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GPKOW	1.6684704
GPN1	1.0939646
GPN3	0.9721513
GPR107	1.659585
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GPR3	1.0963678
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GRAMD1A	2.8335152
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GRCC10	0.74753
GRINA	2.7503843
GRIPAP1	2.7215471
GRSF1	1.7950583
GRWD1	2.3694754
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GSK3A	2.219038
GSKIP	1.3677487
GSPT1	2.3302479
GSR	2.314609
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GSX1	0.7460377
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GTF2IRD2	1.4204645
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GTF3C5	1.5772214
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GTPBP1	0.7652044
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GTPBP6	1.738195
GUSB	0.8442774
GYK	3.056273
GZF1	1.8235769
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H2-AA	1.5925322
H2-AB1	1.0541954
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H2AFZ	0.9652505
H2-D1	1.4035072
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H2-EB1	0.90928745
H2-K1	1.8576622
H2-K2	1.9641294
H2-KE2	1.5789676
H2-M2	1.654685
H2-Q2	2.0738263
H2-Q4	2.526847
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H2-T10	1.7225523
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HARS	2.50062
HAT1	1.3748846
HAUS2	1.0088241
HAUS3	1.5352736
HAUS8	1.6013422
HAX1	2.6646137
HBA-A2	1.283575
HBP1	1.9130583
HCAR2	2.5380425
HCCS	1.4272633
HCFC1	0.9776306
HCFC1R1	1.0726881
HCK	1.7694583
HCLS1	2.0141177
HDAC10	0.95002174
HDAC3	1.0971951
HDAC4	1.2667432
HDAC5	0.8692951
HDC	2.522862
HDGF	1.3787656
HDGFRP2	1.5044713
HEATR1	2.7021441

HEATR2	1.1390419
HEATR3	1.871573
HEATR5A	0.85088205
HEATR5B	0.732954
HECTD1	2.171967
HECTD3	1.309423
HECW1	1.8793254
HELZ	1.7430577
HELZ2	3.3516521
HEMGN	1.9333463
HERC1	1.1715894
HERC2	1.4084778
HERC4	1.5908351
HERC6	2.1918602
HERPUD1	3.2976418
HERPUD2	1.9352899
HEXA	0.9231248
HEXB	1.5222712
HGF	1.1155953
HGS	2.0537486
HIAT1	1.5751343
HIATL1	1.8333149
HIF1A	3.3767061
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HIRIP3	0.8970542
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HPRT	1.1583877
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IFNGR2	2.046061
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IGSF8	2.2757955
IGSF9	1.856524
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IIGP1	3.3827
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KAT7	1.6781039
KAT8	2.3419423
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KCNA4	1.8068929
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LDHA	2.9198866
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LDLRAD3	2.1329904
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LEPROT	0.77959585
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LHFPL2	0.69008994
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LIN28A	1.3795574
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LIN52	0.9305887
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LPL	0.7699928
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LYN	2.408308
LYPD5	1.1209381
LYPLA2	1.5535808
LYRM1	1.3320754
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MCAM	1.6451054
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MRPS17	1.492302
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PVRL1	1.8188524
PVRL2	1.0223651
PWP1	2.3693438
PWP2	2.2596483
PXDC1	2.7160757
PXK	1.673682
PYCR2	0.9909911
PYDC4	0.85890985
PYGL	2.1681724
PYGO1	1.3951092
PYGO2	1.8015418
PYHIN1	2.5041556
QARS	1.9977727
QRICH1	1.3047194
QRSL1	1.7732096

QTRTD1	2.7455602
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R3HDM1	1.2174473
R3HDM2	1.5870132
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RAB11B	0.9430785
RAB12	1.2043543
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RAB18	2.165524
RAB1B	0.7579503
RAB20	2.046442
RAB21	1.8462391
RAB22A	1.8225088
RAB24	1.9407358
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RAB2A	1.7196274
RAB32	3.0757952
RAB33B	1.4166155
RAB35	1.5783815
RAB37	0.7955518
RAB3C	0.8545723
RAB3GAP1	1.467555
RAB3GAP2	1.6659532
RAB3IP	1.5152082
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RAB5A	2.1261554
RAB6A	1.8210659
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RAB8A	1.4020987
RAB8B	1.7448688
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RABEP1	0.93158674
RABEP2	0.9078779
RABGEF1	1.1625562
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RABGGTB	1.7678623
RABL2	1.460566
RAC1	1.3483286
RAC2	1.9911137
RAD17	2.2249584

RAD21	1.0519543
RAD23B	1.988069
RAD51C	1.774581
RAD52	1.7901721
RAD54L2	1.1317782
RAE1	1.7804427
RAF1	1.49506
RAI1	0.81679296
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RALGAPA2	1.3617463
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RALY	1.3524089
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RANBP10	1.3880844
RANBP2	1.8678584
RANBP3	2.8003173
RANBP9	1.7378945
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RAPGEF6	0.96091413
RARS2	1.7675881
RASA1	1.2105057
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RASD1	4.481538
RASGEF1B	2.917266
RASGRP1	1.874423
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RBBP4	0.86904526
RBBP5	1.7915373
RBBP6	1.5267944
RBBP7	1.0740166
RBCK1	1.5238438
RBFOX2	1.5649204
RBM10	2.2438383
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RBM14	1.695755
RBM15	2.8570542
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RBM19	2.5122104
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RBM42	1.6767826
RBM45	0.81448054
RBM47	2.1806974
RBM4B	2.1097112
RBM5	1.331605
RBM6	1.2795949
RBM8A	1.5184565
RBMXL1	1.7262411
RBPMS	1.2562766
RBX1	1.3547449
RC3H1	1.0653467
RC3H2	1.5127444
RCAN1	3.2534552
RCC2	0.94493103
RCHY1	1.8041363
RCOR1	0.74370575
RDH1	1.9227419
RDH10	1.943665
RDX	0.98187685
REEP3	1.8142223
RELA	2.522079
RELB	2.0631094
RELL1	2.0346556
REPS1	1.3758864
REPS2	0.96723366
RER1	2.0251784
REST	1.5611763
REXO4	1.8221722
RFC2	0.7529297
RFK	1.0897651
RFWD2	1.7243557
RFWD3	1.2732038
RFX5	1.4156659
RFXAP	1.4446907

RGL3	2.6351047
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RHOB	1.8544388
RHOC	2.74786
RHOQ	1.3247252
RHOT1	1.4150128
RHOT2	0.81865025
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RIC8	1.0656075
RICTOR	1.7340336
RIF1	1.0530217
RILP	1.3823133
RILPL2	1.4849148
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RIOK3	1.4536972
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RIT1	0.7726674
RLF	1.2606511
RLIM	1.3013206
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RMDN3	3.2369685
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RN28S1	1.5623655
RN4.5S	2.1226273
RNASE10	1.201396
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RNASEH2B	1.4281306
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RNFT1	1.5942535
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RNH1	1.5507355
RNPC3	1.2570508
RNPEPL1	0.8222966
RNPS1	1.5794272
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RPA2	1.2768645
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RPE	1.2060547
RPF1	1.7823834
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RPGRIP1	1.357204
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RPL10A	1.8687687
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RPL39	1.2485423
RPL4	1.5199118
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RPL5-PS2	1.2760673
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RPLP1	0.95756865
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RPS3	1.4659481
RPS3A1	1.142405
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RSPH3B	2.025866
RSPRY1	2.0201426
RSRC2	2.10107
RSRP1	1.3336625
RTCB	1.5990944
RTEL1	0.7790432
RTF1	1.1913111
RTFDC1	1.4307952
RTN3	1.1724386
RTN4	1.5636349
RTP4	2.5118499
RUFY1	1.502429
RUFY3	1.3590517
RUNDC1	1.4499326
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RUSC2	1.3602943
RUVBL1	1.9134445
RXRB	2.5379462
S100A10	1.7772598
S100A8	3.3754263
S100A9	2.6162338
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SAA3	7.074836
SAC3D1	1.205894
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SACS	1.076179
SAE1	0.97228813
SAFB	1.8739386
SAFB2	1.8902726
SAMD4B	1.9961557
SAMD8	1.2454457
SAMD9L	2.011198
SAMM50	1.899641
SAMSN1	3.3693862
SAP130	1.2988749
SAP18	1.6084819
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SAP30L	1.1147437
SAR1A	2.1974235
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SBDS	1.3001871
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SCAF1	0.79110146
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SCAMP1	1.6669674
SCAMP2	1.2332993
SCAMP4	2.1299558
SCAND1	1.4673591
SCAP	1.481102
SCARB2	1.607491
SCIMP	1.1827178
SCNM1	1.48282
SCOC	0.8035157
SCPEP1	1.6124635
SCRIB	1.6276827
SCYL1	1.943429
SCYL2	2.5069633
SCYL3	1.7163973
SDAD1	2.2546144
SDC4	3.950244
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SDF4	1.4630699
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SEC14L4	2.3318868
SEC23IP	1.8614321
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SEC62	1.2667952
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SELT	1.6933227
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SHC1	2.0735583
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SHFM1	1.5113049
SHKBP1	1.0457444
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SLC29A2	1.6287186

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SMARCA5	1.5498829
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SMARCD2	0.9385948
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SMC5	1.6455779
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SMCR8	2.2800245
SMDT1	1.7874599
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SMG7	1.3113184
SMG9	0.8166113
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SMIM12	0.8935394
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SMIM19	0.877553
SMIM20	1.5791335
SMIM7	1.4284525
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SNX10	4.06307
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SNX18	2.3256092
SNX19	1.9254289
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SNX20	2.2486057
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SOCS1	3.9234796
SOCS2	1.469459
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SOCS7	1.4932275
SOD2	4.583622
SON	1.5403099
SORBS1	1.7804723
SOWAHC	3.1910868
SOX9	5.6855936
SP1	1.7163239
SP110	1.9364729
SP140	1.504664
SP3	0.9990654
SPAG7	2.0600572
SPAG9	1.3276334
SPAST	1.7965121
SPATA13	2.1534886
SPATA2	0.8152733
SPATA5	2.1186304
SPATA5L1	1.8063769
SPC24	1.1532295
SPCS1	1.7142897
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SUPT7L	2.8388436
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SYF2	1.1319084
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TYMS-PS	1.1517015
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UNC45A	1.6267633
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WARS2	1.4631195
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WASL	1.6624813
WBP11	1.9091496
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WBP5	0.954124
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XDH	3.2347255
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XPO6	1.7997603
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XRCC4	1.0573726
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XRN2	1.3384814

YAF2	1.0523033
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YIPF6	1.0223336
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YKT6	1.1302676
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YTHDC1	1.4557385
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YTHDF1	1.6693773
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YWHAB	1.4469638
YWHAE	1.7234383
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YWHAZ	1.192666
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**Mice\_onset\_liver\_DEgenes\_fc**

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ABCA4	-2.7949917
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ABCB9	-0.6662781
ABCC12	-3.3919325
ABCC8	-0.4221308
ABCD1	-0.6747162
ABCG1	-0.981549
ABCG3	-3.6526644
ABHD12B	-2.655893
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ABLIM3	-1.9150407
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ACE	-5.511085
ACE2	-4.521343
ACER1	-3.4636478
ACHE	-2.8503542
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ACKR3	-0.5381229
ACOT5	-3.9363332
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ACPT	-5.0255356
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ACSBG1	-1.5680976
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ACSS1	-4.1672573
ACSS2	-2.4577317
ACSS3	-2.519436
ACTA1	-4.258929
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ACTL7A	-2.1444714
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ADCY8	-6.7777796
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ADD3	-1.9688776
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AFAP1L2	-1.4428515
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AGTPBP1	-0.7590792
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ANK2	-2.267811
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CRYGD	-2.1388025
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CSRNP2	-0.5036037
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CTTNBP2	-2.374616
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CTXN2	-4.3149834
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CXCR1	-1.1557376
CXCR2	-2.4815626
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CYS1	-2.2946632
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DCT	-2.1925187
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DDX11	-2.2525163
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DIXDC1	-2.5727751
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TCF23	-1.8991511
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TCP11L1	-0.3437021
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TEKT3	-2.3473516
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TIAM1	-1.9779589
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TLX1	-2.5120635
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ARL4A	3.800607
ARL4C	0.63149095
ARL4D	1.4163
ARL5B	1.0271404
ARL6	1.5072029
ARL6IP1	0.41615844
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ARL6IP6	3.4294403
ARL8A	2.5019372



ARL8B	1.583081
ARMC1	1.763912
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ARMCX5	2.0837543
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ARNTL	1.4195364
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ARPC3	1.4062426
ARPC4	1.0462573
ARPC5	0.9404123
ARPC5L	0.5972197
ARRB2	1.4251583
ARRDC2	0.8539989
ARRDC4	5.1516247
ARSA	2.6254632
ARSG	3.6315486
AS3MT	3.7769287
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ASB8	1.6156676
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ASGR1	7.384157
ASGR2	7.9595184
ASH1L	1.4275653
ASH2L	0.8298166
ASIC3	0.50529015
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ASS1	4.755933
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ASXL2	0.8702519
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ATE1	1.0958936
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BBC3	1.065696
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BCAR1	1.2971027
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BCAS2	1.7936771
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BCL2L1	2.2031767
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BCL2L14	0.8658955
BCL2L15	2.2125475
BCL3	3.3917382
BCL6	0.8684094
BCL7A	0.970711
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BHMT	8.005079
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BLVRB	2.3708465
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BMI1	1.0976117
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BRAT1	1.2332871
BRCC3	1.0949028
BRD1	0.6710777
BRD2	0.88251996
BRD3	0.2894218
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BRIP1OS	2.1048188
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BROX	1.147526
BRPF1	1.6477039
BRPF3	2.513983
BRWD1	0.6672368
BRWD3	1.4484928
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BST2	4.0600796
BTAF1	1.2735679
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BTBD16	2.223089
BTBD19	1.2200141
BTBD6	0.7581494
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BTD	3.6573222
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BTG3	1.5400331
BTK	0.2761526
BTN1A1	3.724778
BUB3	1.2381618
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C1S1	2.931946
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C2	4.0796986
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CACFD1	2.2055004
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CACUL1	2.28466
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CALR	3.171757
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CAMK1D	0.7785821
CAMK2B	1.9852376
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CAMK2N1	0.5226593
CAMK2N2	2.8932045
CAMKK1	0.27852535
CAMKMT	0.4796121
CAML	2.113086
CAMSAP1	1.4164736
CAMSAP3	1.3404
CAMTA2	2.0206382
CAND1	1.4743602
CANT1	1.7924447
CANX	1.8752892
CAP1	0.74001384
CAPG	0.3186853
CAPN10	1.041106
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CAPNS1	0.80943847
CAPRIN1	1.2733729
CAPZA1	2.9723852
CAPZA2	1.8042214
CAPZB	1.8314598
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CARHSP1	2.091398
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CARNS1	0.752208
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CASP1	1.126548
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CATSPER2	2.3341806
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CBX1	0.8009708
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CC2D1A	0.98372865
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CDC16	1.3900635
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CDC42EP2	1.2809985
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CDC42EP5	2.5431144
CDC42SE1	0.54056
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CHD8	1.4404314
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CHDH	2.639334
CHERP	1.342056
CHFR	1.2846205
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CHM	1.1977298
CHMP1A	1.4474208
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CHMP2B	1.2859342
CHMP3	0.9050381
CHMP4B	1.1917508
CHMP5	1.06826
CHMP6	1.6477201
CHMP7	1.6013348
CHN2	2.0260327
CHORDC1	0.51370215



CHP1	2.2215102
CHPF2	2.6839259
CHRAC1	2.2335174
CHRM3	1.8061302
CHST15	0.8559749
CHSY3	3.3947158
CHTF8	0.62183404
CHTOP	1.4811847
CHUK	3.1329854
CHURC1	2.527261
CIAO1	1.446224
CIAPIN1	2.1532881
CIART	1.0941603
CIB1	2.1294467
CIC	0.97274375
CIDEB	3.197727
CIDEC	1.5593193
CIPC	1.7059443
CIRBP	0.82974696
CIRH1A	2.5350707
CISD1	2.6147802
CISD2	1.6793015
CISD3	2.2010262
CISH	2.593908
CITED2	0.9283879
CIZ1	0.80604815
CKAP5	0.49473357
CKLF	0.43488383
CKMT1	0.5726106
CKS1B	1.3839395
CKS2	0.5460651
CLASP1	0.5790069
CLASRP	1.4366815
CLCA1	1.393307
CLCA2	2.5165293
CLCA4	1.6140265
CLCC1	1.4511235
CLCN2	2.2361748
CLCN3	1.3903282
CLCN4-2	2.349182
CLCN5	0.39781785
CLCN7	2.5114915
CLDN1	0.77826285
CLDN12	3.1811893
CLDN14	7.0430765

CLDN2	5.0428753
CLDN25	2.07877
CLEC16A	1.0597324
CLEC1B	0.5331404
CLEC2E	1.6816893
CLEC4A1	1.6896083
CLEC4D	1.6107938
CLEC4E	3.3974102
CLEC4F	0.48595214
CLEC4G	4.093074
CLIC1	1.0454981
CLIC4	0.8714378
CLINT1	1.9330575
CLIP1	1.514602
CLK1	1.7398002
CLK2	1.2021863
CLK4	2.107478
CLMN	1.9797513
CLN3	0.8629887
CLN5	2.5524933
CLN6	0.38502264
CLN8	3.1357114
CLNS1A	1.6971762
CLOCK	1.2124441
CLP1	1.2325323
CLPB	2.589639
CLPP	2.612252
CLPTM1	1.6732605
CLPTM1L	3.0691254
CLPX	3.4416158
CLTA	1.7638991
CLTB	1.7887018
CLTC	1.4370587
CLU	4.6516685
CLUAP1	0.49753547
CLUH	4.3204517
CLYBL	2.7129822
CMAH	1.5319202
CMAS	1.5743244
CMBL	0.92296386
CMC1	2.3517244
CMC2	0.47525668
CMIP	1.3204048
CML1	3.568413
CML2	1.7876914

CMPK1	2.266063
CMPK2	0.6443393
CMSS1	1.43665
CMTM6	0.6824248
CMTM7	0.26505685
CMTM8	1.7598159
CMTR1	2.0909379
CNBP	1.6231062
CNDP2	2.1155827
CNEP1R1	1.2833922
CNIH1	2.3452652
CNIH4	1.1081555
CNKSR3	2.7332623
CNN3	2.0950062
CNNM2	1.5989487
CNNM3	1.6502111
CNNM4	0.7602031
CNOT1	1.4962275
CNOT10	1.0751011
CNOT2	1.0524218
CNOT4	1.0981979
CNOT6L	2.3287804
CNOT7	1.1321707
CNOT8	0.77618194
CNPPD1	2.3282764
CNPY2	2.3059742
CNPY3	1.7006309
CNR2	0.82663655
CNTF	2.6264584
CNTNAP1	3.7288306
COA3	1.0838139
COA4	0.76832175
COA5	2.2068784
COA6	1.721947
COA7	4.2885866
COASY	2.4374583
COBLL1	1.548456
COG1	0.7062571
COG2	2.1311486
COG3	1.923909
COG4	0.88196635
COG6	0.9776566
COG7	1.4057724
COG8	0.7195976
COIL	1.3494477

COL11A1	1.0342178
COL17A1	1.7436261
COL18A1	4.432412
COL20A1	2.4414744
COL27A1	1.9598906
COL4A1	1.094384
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COLEC11	3.2445557
COMMD10	1.5941746
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COMMD3	1.9441783
COMMD4	1.3661602
COMMD5	1.6975877
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COMMD7	1.3986084
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COMMD9	1.9338915
COMT	2.2620304
COMTD1	2.5649831
COPA	2.425195
COPB1	2.2640398
COPB2	2.867781
COPE	2.8278124
COPG2	0.39512897
COPRS	2.0298178
COPS2	2.4727151
COPS3	1.6414502
COPS4	1.8732202
COPS5	2.5281608
COPS6	2.1806986
COPS7A	1.8586576
COPS8	1.4530294
COPZ1	2.0089824
COPZ2	0.46271777
COQ10A	2.0192406
COQ10B	2.556863
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COQ5	2.507311
COQ6	2.0043652
COQ7	2.8077662
COQ9	2.3577821
CORO1B	1.3219903
CORO1C	1.5859649
CORO7	1.6368821

COTL1	0.6883838
COX1	1.7108297
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COX15	1.0255525
COX16	1.8310173
COX18	3.11775
COX19	1.602411
COX2	2.1240358
COX20	1.2285812
COX3	2.5423193
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COX5A	2.629934
COX5B	2.2449615
COX6A1	2.287449
COX6B1	1.6685274
COX6C	2.2811463
COX7A2	2.0987327
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COX7B	2.5028002
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COX8A	1.5712302
CP	6.0636826
CPB2	10.885954
CPD	0.46618962
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CPEB4	1.4542534
CPLX2	0.46034408
CPN1	7.8551855
CPN2	4.2390575
CPNE1	0.44196677
CPNE2	1.4708159
CPNE8	3.681032
CPOX	2.9700692
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CPQ	1.2612169
CPS1	8.693358
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CPSF6	1.676008
CPSF7	1.9458334

CPT1A	3.0706303
CPT2	3.2098048
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CRADD	1.0192239
CRAMP1L	1.1349642
CRBN	1.291703
CRCP	4.0767555
CREB3	2.5302064
CREB3L2	2.106127
CREB3L3	11.944112
CREB5	3.2992709
CREBBP	1.1754944
CREBL2	1.6722062
CREBZF	0.7486074
CREG1	2.2552245
CRELD1	2.4958246
CRELD2	4.546502
CREM	3.298094
CRIPT	1.9158785
CRK	1.5791428
CRKL	1.5078027
CRLF2	1.266361
CRLF3	0.4703815
CRLS1	2.8025396
CRNKL1	1.9294403
CROT	3.0596907
CRP	8.293411
CRTC1	0.99271107
CRTC2	2.2702887
CRTC3	0.56293225
CRY1	2.6371086
CRY2	1.4358785
CRYBB3	7.492955
CRYZ	3.7334049
CRYZL1	1.8488863
CS	0.60891366
CSAD	0.36058164
CSDE1	0.9759629
CSE1L	1.9367058
CSF1	2.1813357
CSF1R	0.5740354
CSF2RA	1.2835801
CSF2RB	1.8874333
CSF2RB2	1.8697164
CSF3	4.684376

CSF3R	2.0599778
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CSNK1E	0.55721307
CSNK1G1	1.1540594
CSNK1G2	1.2110374
CSNK1G3	0.86695933
CSNK2A1	1.6063468
CSNK2A2	1.3863685
CSNK2B	1.6943309
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CSPRS	0.68196464
CSRNP1	2.8567874
CSRP2	1.2216079
CSRP2BP	0.97489524
CSRP3	2.2875373
CST7	0.49253488
CSTB	3.3284276
CSTF1	2.2885273
CSTF2T	1.6576254
CSTF3	1.3343866
CTAGE5	2.7892659
CTBS	1.1844583
CTC1	0.62604403
CTCF	0.971966
CTCFLOS	6.370245
CTDNEP1	0.8362925
CTDP1	1.9551008
CTDSP1	1.3592665
CTDSP2	1.5026143
CTH	1.5979183
CTIF	2.9760664
CTLA2A	0.8459041
CTLA2B	1.3748109
CTNNA1	0.36277938
CTNNB1	0.5018203
CTNNBIP1	0.7000134
CTNNBL1	1.3491895
CTNND1	0.7069824
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CTPS	1.2171195
CTPS2	1.7648771
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CTRC	0.43521428

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CTSD	1.1964486
CTSH	1.1721146
CTSJ	7.9148207
CTSL	4.292238
CTSS	0.49677777
CTSZ	3.0958097
CTTN	1.8946555
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CUL1	2.141806
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CUL3	1.5163729
CUL4A	2.1199105
CUL4B	2.1736162
CUL5	1.8070791
CUL9	0.6642144
CUTA	0.8960459
CUTAL	1.2798612
CUTC	0.97169137
CWC15	1.6370862
CWC22	1.5239546
CWC25	1.5033901
CWC27	1.9164231
CWF19L2	1.3298595
CXADR	1.97313
CXCL1	6.375225
CXCL10	5.5731926
CXCL11	2.0318587
CXCL12	0.9732058
CXCL13	5.2748384
CXCL16	0.7554281
CXCL2	10.168644
CXCL3	6.242814
CXCL5	3.547005
CXCL9	6.1391587
CXXC1	2.0779116
CXXC5	2.0645015
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CYB561D1	0.26319718
CYB561D2	2.7535808
CYB5A	1.1903651
CYB5B	1.2951729



CYB5D1	0.6619866
CYB5D2	1.1976063
CYB5R1	0.8816154
CYB5R4	1.1511219
CYBA	0.87352586
CYBB	2.1820943
CYC1	2.393275
CYCS	2.8786585
CYFIP1	1.2306454
CYHR1	0.47299027
CYLD	0.4584
CYP17A1	0.60152316
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CYP1B1	1.9333365
CYP20A1	0.9982183
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CYTH1	1.7489612
CYTH2	1.2709982
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DACT2	2.836373
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DAK	4.9544334
DANCR	2.577552
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DAP3	2.7935536
DAPK3	0.9683459
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DARS2	1.4668612
DAXX	1.720391
DAZAP1	1.8933966
DAZAP2	1.1206138
DBF4	0.6305127
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DBN1	2.7671406
DBNDD2	0.67125916
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DBT	2.3403847
DBX2	2.437096
DCAF10	1.641247
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DCAF12L1	1.6462836
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DCAF17	1.1629567
DCAF4	1.9269545
DCAF5	1.5808961
DCAF6	1.9003508
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DCAKD	1.3412869
DCC	2.24556
DCHS2	0.592536
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DCTN5	0.80464387
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DDB1	1.8168652
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DDHD1	1.2716556
DDHD2	0.4682386
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DDIT3	1.577719
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DDO	0.3697827

DDOST	2.0066493
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DDT	3.7805102
DDX1	2.7614954
DDX10	1.991987
DDX17	0.71597123
DDX18	1.4739549
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DDX21	1.415067
DDX24	1.731179
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DDX3X	1.8877308
DDX41	1.7422106
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DDX46	0.9404237
DDX47	1.145994
DDX49	2.4323566
DDX5	1.1712825
DDX50	1.8593748
DDX51	1.2489512
DDX52	2.1427977
DDX54	2.1475217
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DDX59	0.62797904
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DEB1	2.1658232
DECR1	3.3294322
DECR2	2.9652264
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DEF8	1.053921
DEFB1	1.4854538
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DEFB34	1.4906397
DEGS1	1.4997485
DEK	0.7019174
DENND1A	1.6942141
DENND1B	1.2167802

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DENND5B	2.0424583
DENND6A	0.62978196
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DEPDC7	2.5030699
DERA	1.9637086
DERL1	3.0239923
DERL2	2.7307436
DERL3	3.2053034
DESI1	1.9044464
DESI2	2.565344
DET1	1.2244103
DEXI	1.2210791
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DGCR14	1.0704615
DGCR2	1.314935
DGCR6	0.3955977
DGCR8	1.2485671
DGKD	0.99906135
DGKE	0.32792926
DGKQ	1.834419
DGUOK	0.5783212
DHCR24	2.39275
DHCR7	3.8447378
DHDDS	2.201431
DHDH	1.9780171
DHODH	1.2819953
DHPS	1.5103123
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DHRS13	3.7009676
DHRS4	3.1351745
DHRS7	0.35836864
DHRS7B	0.6159489
DHRSX	2.662358
DHX15	2.2723591
DHX16	1.0991514
DHX29	0.8576071
DHX30	1.5500333
DHX32	2.2310998
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DHX34	0.3637588
DHX35	1.5337651

DHX36	1.9230521
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DHX40	2.4084108
DHX57	0.9655688
DHX58	2.7309315
DIABLO	2.2997577
DIAP2	1.2553184
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DIEXF	1.0461109
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DIRC2	0.680537
DIS3	2.7738292
DIS3L	1.6017187
DIS3L2	1.4297698
DKC1	1.4847829
DLAT	0.87888074
DLD	3.1049674
DLG1	0.48784184
DLGAP4	1.5987394
DLST	2.5530875
DLX3	1.2993591
DMAP1	1.472089
DMBT1	1.4178665
DMGDH	11.394365
DMPK	0.85920644
DMTF1	2.7574294
DMTN	3.2469823
DMWD	2.2386248
DMXL1	1.6033295
DMXL2	2.1802866
DNA2	1.3458426
DNAAF2	0.93238926
DNAH2	2.9430683
DNAJA1	1.5120747
DNAJA2	2.290993
DNAJA3	3.903744
DNAJB1	0.83804965
DNAJB11	2.7407434
DNAJB14	0.72907853
DNAJB2	2.8621619
DNAJB6	1.5042698
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DNAJC1	1.5259206

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DNAJC13	2.345771
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DNAJC19	1.7429817
DNAJC2	1.4397709
DNAJC21	1.8866456
DNAJC22	4.5172405
DNAJC24	1.3541353
DNAJC25	3.12558
DNAJC28	0.8607652
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DNAJC30	1.9629977
DNAJC5	1.7928784
DNAJC7	1.0290091
DNAJC8	0.47430348
DNAL4	0.70087695
DNASE1L3	1.4235632
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DNM1L	1.4125278
DNM2	1.8280146
DNPEP	2.3858802
DNPH1	1.2038989
DNTT	2.0544248
DNTTIP1	1.6581933
DNTTIP2	1.680476
DOCK5	1.5202386
DOHH	1.5838826
DOK2	1.5594609
DOK3	0.96669126
DOLK	1.269057
DOLPP1	1.4851148
DONSON	2.8248866
DOPEY2	1.906266
DOS	1.4416316
DOT1L	2.3372657
DPAGT1	2.2203877
DPCD	0.72265077
DPEP3	1.4379025
DPF2	1.2292187

DPH1	2.5228884
DPH2	2.11847
DPH5	2.4643219
DPH6	1.3482165
DPH7	0.9525237
DPM1	1.1560519
DPM2	1.465442
DPM3	1.0196974
DPP10	0.7429776
DPP3	2.2094247
DPP6	2.4032567
DPP7	2.3695142
DPP8	0.94530416
DPP9	3.6655304
DPY19L1	3.5032165
DPY19L2	0.6898751
DPY30	1.1868675
DPYD	5.2608957
DPYSL5	2.9302366
DR1	1.6433899
DRAM2	1.1358964
DRG1	1.9556329
DRG2	1.93202
DROSHA	0.8138249
DSC2	5.935005
DSCR3	1.6699097
DSE	1.0033634
DSG2	1.9347892
DSN1	0.42273712
DSP	0.94818044
DST	1.503391
DSTN	2.0316174
DTD2	0.7764914
DTNBP1	2.471791
DTWD1	1.4107444
DTX2	1.8465083
DTX3	0.27429795
DTX3L	1.5645335
DTYMK	1.1427662
DUOX2	2.169568
DUOXA1	1.8289442
DUOXA2	4.605796
DUS1L	2.3909485
DUS2	3.5824215
DUS3L	1.3956072



DUSP1	2.0091598
DUSP10	2.4224293
DUSP11	0.8432579
DUSP12	2.0392115
DUSP16	2.7781007
DUSP2	2.9185836
DUSP22	0.2933128
DUSP28	0.83579135
DUSP6	1.1703956
DUSP8	3.10658
DVL1	2.4581106
DVL2	2.0887492
DVL3	1.0193269
DXO	2.1089923
DYM	0.3607185
DYNC1H1	1.7487252
DYNC1I2	0.87790513
DYNC1LI1	1.3066332
DYNC1LI2	0.4392047
DYNLL2	1.4024236
DYNLRB1	0.8001406
DYNLT1A	0.41869497
DYNLT1C	0.5779145
DYNLT1F	0.61043906
DYNLT3	0.8799851
DYRK1A	1.9219391
DYRK2	1.2261467
DYRK3	0.9629538
E2F3	2.1450264
E2F5	1.5612531
E2F6	1.4228518
E2F8	0.75925493
E4F1	1.0068924
EAF1	2.24146
EAF2	4.362053
EAPP	2.6371682
EARS2	0.9114053
EBAG9	2.0789354
EBI3	1.8998406
EBNA1BP2	1.9139946
EBP	2.409064
EBPL	4.008196
ECD	1.6423118
ECE2	3.0511854
ECH1	2.3563917

ECHDC2	3.863868
ECHDC3	1.8909948
ECHS1	2.791948
ECI1	2.9777267
ECI2	2.9492214
ECI3	2.6396048
ECM1	1.4832561
ECSIT	1.8490255
EDC4	1.5824168
EDEM1	2.4611351
EDEM2	2.2686174
EDEM3	2.1823323
EDF1	1.7500169
EDN1	1.3983457
EDRF1	1.4275362
EEA1	1.5979488
EED	1.8509519
EEF1A1	1.9661205
EEF1B2	2.2002904
EEF1D	1.8786647
EEF1E1	2.093665
EEF1G	1.375274
EEF2	2.3846176
EEFSEC	1.3031318
EFCAB14	0.7904303
EFHD2	1.6558545
EFNA1	3.4061358
EFNA5	1.6080453
EFR3A	1.2100089
EFTUD1	1.933634
EFTUD2	1.408354
EGFR	5.638815
EGLN2	1.9769394
EGLN3	4.379937
EGR1	4.7928314
EGR2	1.3181565
EHBP1L1	0.42079473
EHD1	2.3840554
EHD3	0.4233644
EHHADH	4.455394
EHMT1	3.1974237
EHMT2	1.4244316
EI24	2.4130862
EID3	2.1545916
EIF1	1.7210853

EIF1A	3.7878773
EIF1AD	2.609092
EIF1AX	1.8050239
EIF1B	1.2595379
EIF1-PS	1.7024648
EIF2A	2.0520084
EIF2AK1	2.0445755
EIF2AK2	2.4135816
EIF2AK3	2.3863156
EIF2AK4	1.9458358
EIF2B1	3.0600069
EIF2B2	2.1933777
EIF2B3	2.4126728
EIF2B4	2.5518124
EIF2B5	1.770016
EIF2D	2.285834
EIF2S1	2.170431
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EIF2S3X	1.654669
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EIF3B	1.8287623
EIF3C	1.8796537
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EIF3F	1.452543
EIF3G	2.3013837
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EIF4A1	2.6982806
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EIF4EBP2	1.5621359
EIF4EBP3	5.0108614
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ELAC1	0.47459364
ELAC2	1.6518619
ELAVL1	1.704746
ELAVL4	1.8902991
ELF1	0.6340554
ELF2	1.4591835
ELF3	3.4993637
ELK1	2.0119066
ELK4	0.7577183
ELL	3.1884625
ELL2	3.460871
ELMO3	0.6467354
ELMOD2	3.8180606
ELMOD3	0.9523394
ELOF1	1.0391495
ELOVL2	9.4166355
ELOVL3	3.675345
ELOVL6	1.9796131
ELOVL7	2.56822
ELP2	0.9471481
ELP3	1.4513075
ELP4	0.74695206
ELP5	1.6227281
EMC1	0.75063515
EMC2	1.4642684
EMC3	1.3525975
EMC4	1.48718
EMC6	2.2475321
EMC7	1.7509229
EMC8	1.1294372
EMD	0.9386251
EME2	1.8203576
EMG1	2.092376
EMILIN1	1.341397
EMILIN2	2.739362
EML3	0.690099
EML4	1.2825916
EML5	1.5376205
EML6	1.6517324

EMR1	2.6264174
EMR4	1.0019295
ENC1	3.4153326
ENDOG	3.3836992
ENDOV	1.2460914
ENGASE	0.4312737
ENO1	2.306412
ENO1B	1.9417822
ENO2	3.4322517
ENOX2	0.50320125
ENPP3	5.4129343
ENPP4	2.5450828
ENSA	0.6989739
ENTHD2	1.9354985
ENTPD1	0.3768084
ENTPD2	1.2584913
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ENTPD5	1.8503454
ENTPD6	0.80285215
ENTPD8	3.8421428
ENY2	2.534819
EP400	1.3025758
EPB4.1	1.6578176
EPB4.1L3	0.9336927
EPC1	0.39303994
EPC2	1.4273016
EPHA1	3.3256123
EPHA5	3.5640786
EPHB2	1.5794709
EPHB3	3.3060486
EPHX1	0.7332065
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EPN1	2.3921373
EPPK1	4.726018
EPRS	3.567166
EPS15	1.3480003
EPS15L1	1.1195157
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EPT1	1.3405831
ERAL1	1.9391854
ERAP1	2.8053896
ERBB2IP	1.073467
ERBB3	0.7790406
ERCC2	1.5613163
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ERCC4	1.0748675
ERCC5	1.7737145
ERCC6L2	1.164274
ERCC8	0.8782313
ERDR1	2.490557
EREG	4.37996
ERF	1.1841033
ERGIC1	0.9626672
ERGIC2	2.369302
ERGIC3	0.387254
ERH	1.853965
ERI1	1.4087641
ERI2	0.5449219
ERI3	0.7806523
ERICH1	0.3826108
ERICH5	1.3902235
ERLEC1	1.4138834
ERLIN1	2.5878484
ERLIN2	1.5425456
ERMARD	1.0930889
ERMN	2.122073
ERMP1	1.3716471
ERN1	1.2565782
ERO1L	2.7265518
ERO1LB	3.742699
ERP29	2.7419522
ERP44	1.1441548
ERRFI1	5.1740174
ESCO1	1.4209354
ESD	2.315162
ESF1	1.9982474
ESR1	1.0306454
ESR2	1.4923503
ESRP2	2.4619415
ESRRA	2.3877485
ETF1	2.7532718
ETFA	3.1691215
ETFB	2.6581008
ETFDH	3.8698895
ETHE1	1.7350094
ETNK1	0.7780318
ETNK2	6.6645546
ETNPPL	5.9576473
ETS2	2.9088638
ETV3	1.0540404

ETV4	0.640491
ETV6	2.814864
EVA1A	3.81306
EVI5	1.480335
EVI5L	0.8560431
EVL	0.6178944
EWSR1	0.68327165
EXD1	2.8023937
EXD2	1.1962306
EXO5	0.48991466
EXOC1	0.7111676
EXOC2	0.95939183
EXOC3	0.5224793
EXOC3L4	0.83367133
EXOC5	1.3807342
EXOC6	1.2468936
EXOC6B	1.8415802
EXOC7	1.1143882
EXOSC1	1.0742586
EXOSC10	0.32579732
EXOSC2	2.2365894
EXOSC3	2.1381347
EXOSC4	2.6872747
EXOSC5	1.5516851
EXOSC6	1.3667052
EXOSC7	0.6018269
EXOSC8	0.53102994
EXOSC9	3.4310505
EXT1	1.5141618
EXTL1	1.7439876
EXTL2	1.8224671
EXTL3	1.1255543
EYA1	3.5262702
EYA3	2.3570597
EZH1	0.87789655
EZH2	0.99845886
F10	6.367607
F11	8.4922495
F11R	1.9892647
F12	12.398761
F13B	9.064068
F2	10.92795
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F7	3.4095504
F9	3.6609108

FABP1	5.347333
FABP2	4.419382
FABP4	2.9735582
FABP5	0.30802703
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FADS1	0.88881946
FADS2	1.6980114
FAF1	1.551254
FAF2	3.0687215
FAH	4.496276
FAHD1	1.2186162
FAHD2A	1.2427447
FAIM	1.2665002
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FAM114A1	3.0533087
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FAM115A	0.40516496
FAM117B	0.36130548
FAM118A	2.3330452
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FAM126B	0.43603253
FAM133B	0.35331225
FAM134A	2.8072097
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FAM134C	1.1081212
FAM135A	2.7861984
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FAM13B	0.5387542
FAM151B	0.6198275
FAM160A2	2.4078276
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FAM160B2	3.072448
FAM162A	3.1370866
FAM167B	3.2607782
FAM168A	0.36849093
FAM168B	1.0742404
FAM169B	4.6247725
FAM172A	1.4768021
FAM173A	1.0500357
FAM173B	1.9870732
FAM174A	0.7311013
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FAM179B	0.8416016
FAM185A	2.441533
FAM187B	3.6261528
FAM188A	1.5171177
FAM192A	1.5520895
FAM193A	1.2074606
FAM193B	0.92283654
FAM195A	2.499284
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FAM19A2	3.962965
FAM203A	1.5655024
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FAM206A	0.51781154
FAM207A	1.4924448
FAM208A	1.309377
FAM208B	1.8626969
FAM20A	2.833769
FAM20C	1.7282574
FAM21	2.5513752
FAM210A	1.6591504
FAM210B	1.3882811
FAM213A	3.084758
FAM213B	0.5118387
FAM214A	0.95622754
FAM214B	1.5049846
FAM219A	3.0374782
FAM220A	0.51981044
FAM222A	3.1604683
FAM26F	3.1224787
FAM32A	1.3355005
FAM35A	1.6841483
FAM3A	0.5323646
FAM3C	1.261286
FAM43A	0.45658946
FAM45A	1.394975
FAM46A	2.8239324
FAM50A	2.9332392
FAM53A	1.4509151
FAM53C	1.9043858
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FAM76A	1.2555082
FAM76B	1.0319788
FAM83F	0.85349154
FAM83G	1.4926741
FAM83H	2.5097
FAM86	1.4264281
FAM92A	2.8214333
FAM96A	2.3068721
FAM96B	2.207248
FAM98A	1.9575632
FAM98B	1.2217135
FAM98C	0.91776586
FANCC	1.8576386
FANCE	1.4715402
FANCF	2.337866
FANCL	1.3634427
FANCM	1.1080596
FAP	1.123755
FARP1	1.1076205
FARP2	2.4276512
FARS2	2.2889879
FARSA	1.4205492
FARSB	2.3253915
FAS	2.8146784
FASTK	1.7990491
FASTKD1	2.600178
FASTKD3	2.788514
FASTKD5	2.4315202
FAT1	1.1747439
FAU	1.9947548
FBL	2.060249
FBP1	9.97539
FBRS	0.9198966
FBRS1	1.0429466
FBXL12	1.3164041
FBXL12OS	2.378051
FBXL14	0.67246604
FBXL15	2.0926034
FBXL17	1.3834083
FBXL18	1.4815068
FBXL19	0.3119533
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FBXL4	1.189194
FBXL5	2.0653226
FBXL6	1.0586007
FBXL8	0.57792234
FBXO11	0.92210317
FBXO18	0.7926152
FBXO21	1.1685951
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FBXO3	1.0894091
FBXO30	0.74056363
FBXO31	4.513278
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FBXO4	1.9308155
FBXO42	2.4914405
FBXO46	1.3618119
FBXO6	3.7179606
FBXO7	1.8594358
FBXO8	2.1454456
FBXO9	1.4282153
FBXW11	1.8807557
FBXW17	0.75037694
FBXW4	1.2308233
FBXW5	2.072347
FBXW7	0.37753844
FBXW8	0.7138264
FBXW9	1.7033827
FCER1G	1.8337753
FCF1	1.6950428
FCGR1	0.58020186
FCGR2B	2.467879
FCGR3	1.76671
FCGR4	1.3164728
FCGRT	0.7114465
FCHSD1	1.4482114
FCHSD2	2.3444088
FCNA	4.114485
FCRL5	0.9772055
FDFT1	2.5083945
FDPS	3.092683
FDX1	1.4818704
FDX1L	1.9247172
FDXACB1	1.9163649
FDXR	0.8016932

FECH	0.93383193
FEM1A	1.8584425
FEM1B	0.45315862
FEM1C	1.7693679
FEN1	1.1001112
FERMT2	0.9751532
FERMT3	1.229676
FERT2	1.9956591
FETUB	8.128246
FEZ2	1.5303051
FEZF2	0.86075354
FGA	9.173074
FGB	9.663299
FGD4	1.7249825
FGF21	6.048996
FGF23	1.1005595
FGFR1OP	1.6322367
FGFR1OP2	0.6282642
FGFR2	0.5437572
FGFRL1	1.7719676
FGG	10.698914
FGGY	0.6570842
FGL1	10.607961
FGL2	0.7316201
FGR	0.8231394
FH1	4.7726097
FHL3	0.7099397
FIBP	0.9415505
FIGNL2	1.4510999
FIP1L1	1.7195871
FIS1	1.5829175
FITM2	1.8346059
FKBP1A	1.3964064
FKBP2	2.423466
FKBP3	1.1432254
FKBP5	3.2987092
FKBP8	2.5948503
FKBPL	0.4793861
FKRP	1.8713415
FLAD1	3.3471067
FLCN	2.7167408
FLNB	1.6539505
FLOT1	2.2800238
FLOT2	2.1586225
FLYWCH1	0.51705766

FMNL2	0.48836994
FMO4	4.1142626
FMO5	2.6072586
FMR1	1.0755551
FN1	3.496521
FN3KRP	0.45072365
FNBP1	1.2782681
FNBP4	1.315593
FNDC3A	2.3424027
FNDC3B	3.4231164
FNDC4	5.1374073
FNIP1	2.71297
FNIP2	2.2011745
FNTA	0.78771806
FOCAD	2.2400196
FOLH1	1.7909575
FOPNL	1.0461085
FOS	1.4654324
FOSL1	4.559128
FOSL2	0.41616464
FOXA1	0.34364104
FOXA3	6.658639
FOXC2	1.4060923
FOXJ3	1.0584295
FOXK1	0.7548454
FOXK2	1.205353
FOXL2	2.1293223
FOXN2	1.0951865
FOXN3	0.38025475
FOXO1	1.6384065
FOXP4	1.7485197
FOXQ1	2.4284866
FOXRED1	2.40999
FPGS	3.9653041
FPGT	2.003174
FPR1	2.0231125
FPR2	2.650594
FPR3	4.8898745
FRA10AC1	2.723912
FRAT1	2.0004718
FRG1	0.7897389
FRMD4B	1.0466228
FRMD8	0.6374295
FRMD8OS	1.7364154
FRRS1	3.280019

FRS2	1.3791001
FRYL	2.41069
FRZB	3.9842904
FSCN1	1.7838767
FST	5.615451
FTCD	8.865858
FTH1	2.606474
FTL1	1.8939514
FTSJ1	2.1239173
FTSJ3	2.3186066
FUBP3	1.6656334
FUCA1	0.7464211
FUK	1.3262713
FUNDC1	0.8658993
FUNDC2	0.98107743
FUOM	3.0601285
FURIN	2.293762
FXN	0.642534
FXR1	2.185891
FXR2	1.9495056
FXYD1	2.0771472
FYB	1.4813378
FZD4	0.37319493
FZD9	0.86435556
FZR1	1.1863534
G3BP1	2.265917
G3BP2	1.8445618
G6PC	7.3997917
G6PDX	0.8005941
GAA	1.8160326
GAB1	0.4916122
GAB3	2.4071777
GABARAP	2.5221527
GABARAPL1	2.3334434
GABARAPL2	1.999809
GABBR2	0.5601287
GABPA	1.9974186
GABPB1	1.1157072
GABPB2	0.7153194
GABRR1	1.3453147
GADD45B	1.635153
GADD45G	5.0261617
GADD45GIP1	2.4086616
GAK	1.8508642
GALE	2.6963456

GALK1	1.8525264
GALK2	1.3710387
GALNS	1.8792107
GALNT1	0.43646598
GALNT10	0.50089145
GALNT11	1.1652167
GALNT2	1.1511195
GALNT4	0.8696859
GALNT7	1.4091823
GAMT	0.7879112
GAN	0.7753458
GANAB	2.7512815
GANC	0.842026
GAPDH	3.1713672
GAPVD1	1.6210129
GAR1	2.3851998
GAREM	5.509163
GARS	2.3941896
GART	0.78237915
GAS2	2.0302749
GAS2L1	1.3211024
GAS2L3	0.8781557
GAS5	2.276758
GAS6	0.9676988
GAS8	0.8604615
GATA4	3.253361
GATA5	1.664952
GATA6	1.0458128
GATAD1	0.9681585
GATAD2B	0.47055125
GATC	1.113698
GATM	0.871732
GBA	4.0051527
GBA2	0.37561297
GBAS	0.5175953
GBE1	3.0248988
GBP10	1.964009
GBP11	4.2173767
GBP2	2.9137022
GBP2B	2.904524
GBP3	3.2754643
GBP4	0.9987099
GBP5	3.4932168
GBP6	4.0114565
GBP7	2.648053

GBP8	1.2710955
GBP9	2.523854
GC	10.400085
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GCC1	1.1487117
GCC2	2.0520318
GCDH	5.6809826
GCFC2	1.5029192
GCGR	5.146325
GCH1	5.000861
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GCKR	9.840805
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GCLM	2.0708835
GCM1	1.2294447
GCN1L1	1.4976404
GCNT2	1.3930857
GCSH	1.7809708
GDA	1.0462921
GDAP10	3.4851153
GDAP1L1	0.96990585
GDAP2	2.6873071
GDE1	1.7830737
GDF15	6.4270935
GDF2	3.0460265
GDI1	0.8511579
GDI2	1.5346463
GDPGP1	1.0564387
GEM	0.84222436
GEMIN5	1.4151871
GEMIN6	1.8432384
GEMIN7	0.5805447
GEMIN8	2.0631063
GET4	0.8342221
GFER	3.3600214
GFM1	2.9884522
GFM2	2.1000192
GFOD2	0.9603045
GFPT1	1.7110035
GFRA1	4.4549656
GFRA4	0.5822146
GGA1	1.2291224
GGA2	1.7360284
GGA3	1.2034194
GGACT	1.1365225



GGCT	2.2147443
GGCX	1.9317863
GGH	0.69602656
GGNBP2	1.920718
GGPS1	0.48019004
GGT6	4.7603273
GHDC	1.731714
GHITM	3.0947793
GHR	1.3377254
GID4	0.38418126
GID8	1.5743778
GIGYF1	1.6004527
GIGYF2	1.819598
GIMAP9	1.9128978
GIN1	1.7134981
GINM1	1.9778192
GINS1	1.046993
GINS4	0.5148914
GIPC1	1.2503436
GIT1	0.8678715
GIT2	0.7427347
GJA1	1.3422887
GJA4	1.1672027
GJB1	4.216982
GJB2	8.530104
GJB4	2.129413
GJC3	1.8870319
GKAP1	1.580528
GKN3	0.6931789
GLA	1.4329603
GLB1	0.38072085
GLCE	3.4616945
GLDC	5.863675
GLE1	0.84563184
GLG1	1.4301364
GLIPR2	2.042092
GLMN	1.0999787
GLO1	2.5004895
GLOD4	1.4504302
GLOD5	1.1152077
GLRX	2.959205
GLRX2	2.185688
GLRX3	1.8272059
GLRX5	2.010318
GLS2	4.278488

GLT1D1	3.07106
GLT25D1	2.192146
GLT8D1	1.1507266
GLTPD1	1.8811066
GLTPD2	8.957153
GLTSCR2	1.1699827
GLUD1	1.5468867
GLUL	1.4650624
GLYAT	3.5042036
GLYCTK	4.46241
GLYR1	1.8038123
GM10015	1.9318197
GM10065	1.1956446
GM10094	1.4464543
GM10101	1.0064087
GM10134	0.4264741
GM10142	1.8298752
GM10228	3.0865967
GM10257	0.50515866
GM10272	0.8398342
GM10318	0.3977034
GM10324	0.9881189
GM10387	2.290199
GM10405	3.1046216
GM10420	1.7930298
GM10425	1.3755732
GM10461	1.3805516
GM10631	1.2674067
GM10634	2.0032618
GM10639	0.77342033
GM10640	1.7683427
GM10653	1.9789107
GM10658	5.3624616
GM10680	4.1029253
GM10693	1.5149462
GM10696	2.449503
GM10731	0.80546737
GM10734	3.0689528
GM10765	1.551122
GM10767	1.1910722
GM10768	8.932667
GM10791	1.0014286
GM10796	1.1556745
GM10827	3.45801
GM10839	2.255702

GM10845	1.7061346
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GM10856	1.5061033
GM10872	4.6514893
GM10910	1.4512558
GM10914	2.279069
GM11033	6.0114737
GM11127	1.695791
GM11213	0.37666106
GM11240	1.5291278
GM11449	1.23792
GM11559	1.0100117
GM11564	1.3952012
GM11783	1.6864743
GM11810	1.09218
GM11974	2.4308803
GM12060	2.7112243
GM12070	3.0434499
GM12216	0.7553103
GM12247	2.206135
GM12250	0.48244452
GM12271	0.46896672
GM12447	1.5817869
GM12503	2.5354025
GM12508	1.8559859
GM12618	1.8542788
GM12620	2.4188645
GM12693	1.4558809
GM12758	2.2942748
GM12816	1.7517252
GM12942	0.94186616
GM13023	0.4353764
GM1305	2.4072182
GM13194	0.90471673
GM13202	2.5043561
GM13215	1.4863694
GM13238	2.0763798
GM13315	3.8618124
GM13570	1.7721415
GM13770	1.5684121
GM13777	1.4642718
GM13826	1.328434
GM13889	0.6469033
GM13931	1.2897925
GM14010	2.3641677

GM14135	0.91986585
GM14288	1.553335
GM14322	1.4795372
GM14325	0.8918946
GM14326	1.1213238
GM14347	1.5836813
GM14391	1.1055682
GM14393	0.72846484
GM14410	1.2703006
GM14420	0.9647777
GM14431	1.9598558
GM14432	1.5265653
GM14440	1.9014413
GM14443	1.4296949
GM14548	1.4676912
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GM15032	1.2275159
GM15056	2.919223
GM15340	1.2582107
GM15348	2.1444285
GM15421	2.4677665
GM15466	0.743541
GM15520	2.6768217
GM15645	2.3110268
GM15760	1.5447452
GM15772	1.7310545
GM15998	3.264672
GM16062	0.6856656
GM16340	2.05248
GM16381	1.0392048
GM16386	0.61167264
GM16515	0.6513765
GM16525	0.95906353
GM16853	1.9216456
GM17748	0.60481095
GM17757	1.5870721
GM17764	1.3504016
GM17821	2.4573796
GM1943	0.70225334
GM19840	1.1866062
GM20056	0.360708
GM2016	3.4822538
GM20746	1.8728349
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GM2085	1.0552711

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GM2138	1.2840021
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GM21944	1.2849357
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GM2379	2.1670516
GM2382	2.1079166
GM2436	2.11402
GM2518	0.94560266
GM2590	1.2061212
GM2696	0.7668059
GM2701	0.93432045
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GM3161	1.3276432
GM3219	0.81706953
GM3239	0.8348186
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GM3289	3.2630908
GM3367	1.2717168
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GM3414	1.5948477
GM3448	2.0112164
GM3455	0.29885387
GM3556	1.9573376
GM3776	1.7480161
GM3805	1.3361838
GM3893	0.89507484
GM4117	4.278537
GM4123	2.3859293
GM4130	1.2193921
GM4342	1.2445061
GM4349	0.64825916
GM4402	2.1327193
GM4470	1.1936114
GM4473	0.94779396
GM4673	1.2923112
GM4786	1.7219317
GM4788	5.0936737
GM4802	1.8652723
GM4832	1.518327
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GM4862	1.4986936
GM4889	1.2113893
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GM4951	4.883046
GM4952	5.4983006
GM4963	1.6731522
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GM4997	2.2769413
GM5039	1.7399857
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GM5079	0.7746346
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GM5114	1.8793416
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GM5136	1.5221226
GM5176	1.8184903
GM5396	1.5748079
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GM6211	1.950546
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GM626	3.4151728
GM6328	2.159418
GM6377	2.683047
GM6402	0.583776
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GM6444	1.1324155
GM6498	2.2847035
GM6524	2.2708957
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GM6570	1.3996456
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GM6981	3.0324633
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GM7111	2.0888762
GM7120	2.1699598
GM7160	1.2651048
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GM7555	1.1659052
GM7634	1.4211366
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GM7967	2.4168499
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GM8580	2.136594
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GM8801	1.2411788
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GM8884	1.7453041
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GM8994	2.4375365
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GM9049	1.1177075
GM9079	2.3946025
GM9178	2.8120134
GM9234	1.5204055
GM9385	1.9457042
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GM9802	1.1010652
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GM9975	1.094459
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GMFB	0.34906602
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GMPPA	2.3164408
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GNAI3	2.2496998
GNAS	1.0551617
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GNB1L	0.888855
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GNB2L1	1.8833714
GNE	2.849488
GNG12	2.7453077
GNG5	1.6354086
GNL1	0.86484647
GNL2	2.8740222
GNL3	3.3636696
GNL3L	0.59571385
GNMT	4.9071064
GNPAT	1.1737969
GNPDA1	1.771146
GNPNAT1	2.6701462
GNPTAB	0.35464406
GNPTG	1.4206054
GNS	2.1183531
GOLGA1	1.9634507
GOLGA2	1.4117582
GOLGA3	2.5906265
GOLGA4	2.4197214
GOLGA5	2.8461263
GOLGA7	1.4482515
GOLGA7B	2.5719988
GOLGB1	2.8867614
GOLIM4	1.9489548
GOLM1	1.1245229
GOLPH3	2.3138764
GOLPH3L	0.370929
GOLT1B	0.7528405
GOPC	1.649843
GORAB	1.530968
GORASP1	2.1309621
GORASP2	1.401943
GOSR1	1.4200723
GOSR2	1.6343853
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GPATCH1	0.81735015

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GPATCH2L	1.5281484
GPATCH3	1.3412285
GPATCH8	0.8540833
GPBP1	1.7878292
GPBP1L1	0.9357455
GPC4	2.9070504
GPCPD1	4.0038986
GPD1	0.94979167
GPD2	2.2267916
GPHB5	1.0259128
GPHN	2.9933221
GPI1	2.321849
GPKOW	1.2493966
GPN1	0.9308326
GPN2	1.4687498
GPN3	1.0136778
GPR107	1.4189904
GPR108	0.57527375
GPR110	0.50026965
GPR137	1.4585869
GPR146	1.828047
GPR157	1.7564199
GPR171	0.8358259
GPR18	1.1035018
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GPR22	1.2124906
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GPR31B	1.2426596
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GPR64	1.605799
GPR65	1.9475372
GPR84	2.8692658
GPR85	2.0548348
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GPS1	2.1312468
GPS2	0.89783835
GPSM2	0.76158786
GPT	0.9742305
GPT2	6.5675936
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GPX4	0.85455775

GRAMD1A	1.3728697
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GRAMD3	2.0761201
GRAMD4	1.1815894
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GRB2	0.569473
GRB7	2.991441
GREB1L	2.3186939
GRHL1	0.47522497
GRHPR	5.1094866
GRINA	3.5709512
GRIPAP1	2.6229599
GRN	2.6480591
GRPEL1	3.7830288
GRPEL2	2.5140884
GRSF1	2.3280795
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GRWD1	2.3181489
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GSK3A	1.7256048
GSKIP	1.5888543
GSPT1	2.3105962
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GSS	3.2275689
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GSTM3	0.5367148
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GSTM6	2.3067653
GSTO1	0.36870217
GSTP1	3.0624635
GSTP2	3.2784092
GSTT1	0.5682795
GSTT2	2.614084
GSTT3	2.2097652
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GTF2E2	1.3500149
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GTF2IRD1	2.2500737
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GTF3C1	0.6745436
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GTF3C5	1.4638355
GTF3C6	1.9756048
GTL3	0.6092708
GTPBP1	0.5322244
GTPBP10	1.1951249
GTPBP2	1.8029425
GTPBP4	1.514117
GTPBP6	1.784147
GTPBP8	2.7581131
GTSE1	2.1697085
GUCA1B	0.6808276
GUCA2A	0.98642945
GUCA2B	3.2806308
GUCD1	3.985037
GUCY2C	1.488311
GUK1	0.86709714
GULO	6.48662
GUSB	1.102021
GVIN1	0.6692655
GXYLT1	0.74372697
GXYLT2	2.9422848
GYK	2.8730013
GYLTL1B	0.37333226
GYPE	0.5143707
GYS1	1.3336365
GYS2	8.119665
GZF1	2.0600164
GZMB	2.1843169
H13	2.6052363
H19	1.0365999
H1FO	1.2556252
H2AFJ	0.37011504

H2AFV	0.7728083
H2AFX	1.1747172
H2AFY	0.8464234
H2AFZ	0.775141
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H2-K1	2.2013087
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H2-T23	2.0500963
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HAMP2	2.673732
HAND2	1.1034248
HAO1	6.444278
HAO2	1.5663235
HARBI1	2.188656
HARS	2.5276315
HARS2	1.0022285
HAT1	1.804632
HAUS1	0.85972714
HAUS2	1.5004735
HAUS3	1.0626857
HAUS4	0.4604571
HAUS5	0.5765946
HAUS6	0.6179936

HAUS7	2.0194964
HAUS8	0.4480126
HAX1	3.1091392
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HC	1.7227013
HCAR2	2.7161157
HCCS	1.90978
HCFC1	1.1883223
HCFC2	0.6982827
HCK	0.73631597
HCLS1	1.8962743
HDAC1	0.8725507
HDAC10	0.96432805
HDAC11	0.38737106
HDAC3	1.7109272
HDAC4	1.1891024
HDAC5	0.45646262
HDAC9	0.6153188
HDC	1.1024225
HDDC2	0.3302138
HDGF	1.4378502
HDGFRP2	1.455003
HDHD2	0.7110696
HDLBP	4.0435934
HEATR1	3.061773
HEATR2	1.6632779
HEATR3	2.2120235
HEATR5A	0.9841287
HEATR5B	0.5920279
HEATR6	2.1962645
HEBP1	2.313893
HECA	1.2375352
HECTD1	2.5352814
HECTD2	1.0671899
HECTD3	1.8625505
HECW1	3.7077
HELB	2.5407493
HELQ	1.6646931
HELZ	1.3477566
HELZ2	3.2011912
HEMGN	3.5492084

HERC1	1.2081678
HERC2	0.9729755
HERC4	2.0780942
HERC6	2.9121816
HERPUD1	3.1051667
HERPUD2	2.1779974
HESX1	1.3448997
HEXA	1.0272615
HEXB	1.6743114
HEXDC	0.9346721
HEXIM2	0.38223004
HFE	2.243643
HFE2	3.481314
HGD	3.2202098
HGF	1.431227
HGFAC	2.8764136
HGS	2.4194639
HGSNAT	2.9775908
HHEX	2.2304828
HIAT1	1.345206
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HIC1	0.52800846
HIC2	1.2686157
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HIF1A	3.6812932
HIF1AN	1.480788
HIGD1A	2.4492486
HIGD2A	1.6067655
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HINT3	2.473735
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HIPK1	0.5533445
HIPK2	0.33807445
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HIST1H1C	1.3534777
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HIST1H4M	2.6728425
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HIST2H3C2	0.766381
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HK2	2.4469445
HK3	2.6721923
HLCS	0.8780067
HLF	0.6823218
HLTF	0.6870005
HMBS	1.3611095
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HMGA1	2.1493638
HMGB1	1.1062577
HMGB1-RS17	0.79283214
HMGB2	0.4416921
HMGB3	1.7842176
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HMMR	1.0448191
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HMOX2	2.4809902
HMX3	0.6252272
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LRIG3	1.7509296
LRIT1	5.428351
LRMP	1.788274
LRP1	2.2703664
LRP10	2.2462933
LRP12	1.1954296
LRP2BP	1.1057904
LRP3	1.1951549



LRP5	1.6032231
LRP6	0.91416335
LRP8OS1	4.4360394
LRPPRC	3.3984244
LRR14	1.4800577
LRR14B	2.4447718
LRR19	2.2253854
LRR20	1.4899871
LRR24	1.5709636
LRR25	1.7581518
LRR28	2.18698
LRR3	1.0233009
LRR31	1.7594492
LRR38	1.9080071
LRR3B	1.0236535
LRR40	2.2620218
LRR41	1.8993509
LRR42	2.7887375
LRR47	2.1013234
LRR48	0.36469293
LRR58	1.7354376
LRR59	3.2015269
LRR61	0.49256134
LRR8A	2.8961647
LRR8C	0.8871937
LRR8D	2.4716518
LRWD1	1.1833951
LSG1	2.5171802
LSM1	2.175998
LSM10	1.5612013
LSM11	1.9356337
LSM12	1.639816
LSM14A	1.8908169
LSM14B	0.49469447
LSM2	1.5456922
LSM3	0.43139672
LSM4	2.1817157
LSM5	1.4210126
LSM6	1.0174339
LSM7	0.9934056
LSM8	1.4008882
LSR	3.6303728
LSS	2.484629
LTA4H	0.82564473
LTB	1.2601211

LTB4R1	0.95800185
LTB4R2	1.9822407
LTBR	1.9651616
LTN1	1.6048226
LTV1	2.4393418
LUC7L	2.076142
LUC7L2	2.7546484
LUC7L3	1.1652882
LUM	1.0780609
LURAP1L	2.8367155
LY6D	2.1728423
LY6G	1.9008939
LY6K	1.7495964
LY96	2.6905177
LYN	1.6929715
LYPD5	2.7031195
LYPLA1	1.9838521
LYPLA2	1.5870831
LYPLAL1	2.5984333
LYRM4	1.7206714
LYRM5	2.3964965
LYSMD1	1.9496639
LYSMD3	2.5793784
LYSMD4	1.8868506
LYVE1	1.350559
LZIC	2.2886581
LZTFL1	1.7547829
LZTR1	0.4775684
LZTS3	0.7416718
M6PR	1.8504107
MACROD1	0.88740563
MAD1L1	1.8121617
MAD2L1BP	1.1043904
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MAEA	1.5196621
MAF	2.229853
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MAFB	2.8737895
MAFF	4.2769823
MAFG	2.5522277
MAFK	2.0555751
MAG	1.1604035
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MAGT1	2.1683557
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MALSU1	2.7014315
MALT1	2.357395
MAML1	1.3619888
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MAN1A2	0.58408
MAN1B1	1.3971217
MAN2A1	3.1404874
MAN2B1	0.64237285
MAN2B2	0.67645574
MAN2C1	1.8176429
MANBA	0.888633
MANEA	1.1955335
MANF	3.9534104
MANSC1	0.93607306
MAOB	1.465215
MAP1LC3B	2.4971755
MAP1S	1.0585496
MAP2K1	2.6594136
MAP2K2	2.5691159
MAP2K3	1.6721599
MAP2K4	1.4800174
MAP2K5	1.1151001
MAP3K1	2.0036986
MAP3K11	0.9215472
MAP3K14	1.1595452
MAP3K15	0.78624964
MAP3K4	0.7257011
MAP3K5	1.5363591
MAP3K6	2.128425
MAP3K7	1.9393547
MAP3K8	3.5246217
MAP4K3	0.41883302
MAP4K4	1.141783
MAP4K5	1.1460087
MAP6D1	1.2337258
MAP7	2.4378655
MAP7D1	0.6619866
MAPK1	1.4395683
MAPK14	0.7399318
MAPK1IP1	1.627414

MAPK1IP1L	1.872978
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MAPK7	1.5290539
MAPK8IP3	1.4082859
MAPK9	0.9235642
MAPKAPK2	2.1906354
MAPKAPK5	1.8922656
MAPRE1	1.0638878
MAPRE3	2.1039207
MARCKS	0.4565723
MARCKSL1	3.1055992
MARCO	4.727949
MARF1	0.3974061
MARK1	1.2100451
MARK2	0.63731074
MARK4	1.664799
MARS	3.0050337
MARS2	1.7545872
MARVELD2	2.1958053
MASP1	3.3028305
MASP2	5.5667315
MAST2	1.3518827
MAST3	1.3533733
MAT1A	7.5861526
MAT2A	1.7685444
MAT2B	0.6686208
MATR3	1.6356032
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MAX	0.88038087
MAZ	0.3728416
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MBD1	5.1864614
MBD2	1.1510241
MBD3	0.89807916
MBD6	1.9348648
MBL1	4.58012
MBL2	11.083679
MBLAC1	0.75930905
MBOAT7	1.7108223
MBTD1	1.520416
MBTPS1	1.6614988
MC3R	1.6232481
MCAM	3.0676377
MCAT	1.9602978
MCCC1	2.0577881

MCCC1OS	3.5825367
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MCFD2	3.1231081
MCL1	0.99170613
MCM10	1.4694757
MCM3	1.1697004
MCM4	0.89845586
MCM7	1.1930525
MCMBP	1.190707
MCOLN1	2.444782
MCPH1	0.8663759
MCRS1	0.5615294
MCTP2	3.8160655
MCTS1	1.4190619
MCTS2	2.1520522
MCUR1	1.9401915
MDC1	0.8435643
MDFIC	1.0413091
MDH1	2.704717
MDH2	2.6019628
MDM2	1.7120702
MDN1	2.0451424
ME1	1.808265
MEA1	1.9757903
MEAF6	0.75833964
MECP2	0.4951794
MECR	0.67220163
MED1	2.0480268
MED10	1.5482438
MED11	0.7622907
MED12	0.6865866
MED13	0.692852
MED15	1.4390867
MED16	2.2806368
MED17	1.8827868
MED20	1.649059
MED21	1.4965937
MED22	0.59243846
MED23	0.87352324
MED24	1.2557809
MED26	1.7815354
MED27	1.1787741
MED28	1.1374934
MED29	1.3016431
MED30	0.68114305

MED31	0.95577884
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MED6	1.2891414
MED7	2.1196616
MED8	2.27234
MED9	2.383444
MEDAG	1.9674556
MEF2A	2.7557895
MEF2D	0.81613994
MEFV	3.0162437
MEGF8	1.0493438
MEGF9	1.0148096
MEIOB	3.713288
MEIS2	0.8760023
MELK	2.0744917
MEMO1	1.4442546
MEN1	0.48331952
MEPCE	1.1809685
MERTK	1.1812179
MESDC2	1.2233255
METAP1	2.2168534
METAP1D	2.7816298
METAP2	1.8354962
METRNL	1.0691874
METTLL1	2.562937
METTLL10	0.725548
METTLL14	1.0589812
METTLL15	1.4581432
METTLL16	1.4319088
METTLL18	1.8332474
METTLL2	0.6887965
METTLL20	3.1401403
METTLL21A	0.9383795
METTLL22	2.297618
METTLL25	0.79896235
METTLL3	1.5467417
METTLL4	1.0883377
METTLL5	1.5117781
METTLL6	1.804322
METTLL7B	2.8661969
METTLL9	1.6737964
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MEX3D	0.94052196
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MFAP1B	0.6499698

MFAP3	1.2916553
MFF	1.1455991
MFI2	1.4831514
MFN1	2.548845
MFN2	1.7009351
MFSD1	1.5348322
MFSD10	1.1189048
MFSD11	1.1425219
MFSD12	0.96241355
MFSD2A	5.5003433
MFSD2B	1.2156599
MFSD3	1.6042345
MFSD5	1.671066
MFSD6	0.3937676
MFSD7B	2.0474145
MFSD8	0.7179675
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MGAM	6.031534
MGARP	5.1508493
MGAT1	1.3537529
MGAT2	1.9609139
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MGEA5	1.6999128
MGMT	2.5952003
MGRN1	1.7070711
MGST1	3.552942
MIA2	3.9242904
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MIB1	2.1259477
MIB2	1.2545717
MICALL1	1.5492585
MICALL2	0.92736435
MICU1	1.2588112
MICU2	1.5970142
MID1	3.5726483
MIDN	1.3005059
MIEF1	1.7079632
MIEN1	2.119755
MIER1	0.6244252
MIER2	2.2718952
MIER3	2.0859993
MIF	3.8110144
MIF4GD	1.2520249
MIIP	0.7032254

MILR1	2.0581136
MINA	2.5724695
MINOS1	0.7250469
MINPP1	2.4645665
MIOS	1.2752075
MIOX	2.4874542
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MIR17HG	2.3997443
MIR22HG	2.2187774
MIS12	2.1335084
MITD1	1.5139253
MITF	0.26484656
MKKS	0.6162913
MKL1	0.7098634
MKL2	0.8566916
MKLN1	1.6129558
MKNK2	2.245352
MKRN1	0.47454906
MKS1	1.2355001
MKX	2.9182072
MLEC	2.0422595
MLF2	1.354625
MLH1	1.2599056
MLH3	0.9619732
MLKL	3.4912841
MLLT1	1.0324347
MLLT10	0.75554824
MLLT4	1.482085
MLLT6	2.407088
MLX	2.3768418
MLXIP	0.41572523
MLXIPL	4.4121494
MLYCD	3.1757839
MMAA	0.83847785
MMAB	1.3561585
MMACHC	2.901481
MMADHC	3.226422
MMGT1	0.8653376
MMP14	0.99277425
MMP3	0.9164357
MMP7	3.1476314
MMP8	1.5244944
MMS22L	3.7419412
MNDA	1.0017493
MNT	1.3912771



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MOB1B	0.8646469
MOB2	0.84444356
MOB3B	0.3961377
MOB3C	0.81169105
MOB4	1.6971953
MOCOS	4.1491766
MOCS1	3.1813667
MOCS2	2.2092254
MOCS3	2.6326168
MOGS	2.6427362
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MON1B	0.999501
MON2	1.7779431
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MORC2A	1.2789204
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MORF4L2	2.227968
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MOSPD2	1.441252
MOSPD3	0.45277715
MOV10	2.663112
MPC1	2.3806298
MPC2	2.5778558
MPDU1	1.9343927
MPEG1	1.9238551
MPG	2.0281217
MPHOSPH10	1.2246053
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MPHOSPH8	1.7161644
MPI	1.8693984
MPND	2.513623
MPP6	4.3781157
MPPE1	0.7206886
MPST	0.99724174
MPV17	1.9579895
MPV17L2	1.17012
MPZL1	0.77965045
MPZL2	4.8303957
MPZL3	1.3553255
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MRE11A	1.8756301

MREG	4.030116
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MRGBP	1.2658479
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MRPL10	2.352063
MRPL11	1.907532
MRPL12	1.8829224
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MRPL15	3.217553
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MRPL2	1.3016732
MRPL20	2.1151812
MRPL21	2.02762
MRPL22	1.6611845
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MRPL3	1.7488482
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MRPL51	2.6103518
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MRPS17	1.615711
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MRPS2	2.5705411
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MRPS26	1.7127202
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MRPS30	2.3622925
MRPS31	2.8808482
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MRPS7	2.308462
MRPS9	2.0307143
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MS4A6D	3.706238
MS4A8A	3.0303996
MSANTD2	0.4766965
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MSL1	0.9473045
MSL2	0.9200747
MSL3	1.6553466
MSMO1	3.0086882
MSR1	4.268133
MSRA	3.3483903
MSRB1	1.644851
MSRB2	0.92779565
MST1	8.118801
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MT2	5.89396
MT3	0.5759964
MTA2	1.5376651
MTA3	1.71049
MTAP	0.537313
MTBP	2.1713722
MTCH2	2.7875865
MTDH	1.7844346
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MTERFD2	1.9331992
MTF1	0.8417835
MTF2	1.214782
MTFMT	1.8004715
MTFP1	1.9980538
MTFR1	2.8420417
MTFR1L	1.2445195
MTFR2	3.5024927
MTG1	1.5701253
MTG2	2.6348293
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MTHFD1L	2.6537406
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MTHFR	1.1433771
MTHFS	2.143769
MTIF2	2.7832897
MTIF3	0.66981554
MTM1	1.020536
MTMR1	1.3943169
MTMR10	1.0060453
MTMR11	3.2222695
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MTMR14	1.8104036
MTMR2	0.91957736
MTMR3	0.641453
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MTMR6	0.6464226
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MTPAP	2.0877755
MTPN	1.5356948
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MTUS2	0.4896536
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MTX2	2.7416317
MUG1	10.176828
MUG2	10.782334
MUL1	3.5600603
MUP1	2.8136013
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MUP19	2.1937048
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MUP3	6.146245
MUP4	3.882414
MUP5	5.274135
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MVB12A	3.2702038
MVD	2.0152476
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MX2	2.5412443
MXD1	2.4221485
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MYC	3.5218165
MYCBP2	1.2528927
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MYEOV2	1.4521778
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MYF6	0.6591065

MYG1	1.3177173
MYH9	0.6220305
MYL12A	0.35061383
MYL6	0.49586844
MYO18A	0.88771605
MYO19	1.1708944
MYO5B	0.4856894
MYO7B	1.0683289
MYO9B	0.94408584
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MZT2	1.9498475
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NAB1	2.0907218
NAB2	1.8850324
NABP1	1.4711285
NABP2	1.192579
NACA	1.4870818
NACC2	0.92605805
NADK	2.4815462
NADK2	2.0316355
NADSYN1	3.7658904
NAE1	1.9124787
NAF1	1.412523
NAGA	0.62470174
NAGK	1.6386945
NAGLU	1.6982558
NAGS	2.6459672
NAIP2	1.5442469
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NANP	2.7230477
NANS	2.1949708
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NAPA	2.5774734
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NAPRT1	4.2884426
NARF	1.3620889
NARFL	1.5627992
NARG2	1.1062479
NARS	2.8997371
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NASP	1.3924134
NAT10	1.727701
NAT2	2.1308267
NAT6	0.89323163
NAT8	1.4047465
NBAS	2.7573926
NBN	1.1222179
NBR1	2.532367
NCAPD3	0.6043315
NCAPH2	1.0734475
NCBP1	1.2357028
NCDN	1.2599804
NCEH1	1.2056558
NCF1	1.6230605
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NCK1	2.7557623
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NCOA1	0.61060023
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NCOA5	0.9901836
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NCOR2	0.94507
NCSTN	0.9492018
ND1	2.4100106
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ND4	2.3370726
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ND5	2.8434026
ND6	1.0743315
NDC1	1.4571307
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NDFIP1	1.7568152
NDNL2	0.41877198
NDOR1	2.070843
NDRG1	3.5418122
NDRG2	2.088001
NDRG3	0.76605344
NDST2	1.7387407
NDUFA1	1.9823511
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NDUFA5	1.331929
NDUFA6	1.5860364
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NDUFA8	1.9288843
NDUFA9	2.9783738
NDUFAB1	2.5321782
NDUFAF1	0.6277511
NDUFAF2	1.2516081
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NDUFAF4	3.1454656
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NDUFB10	1.0330646
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NDUFB4	1.6380689
NDUFB5	1.3370774
NDUFB6	2.3987534
NDUFB7	2.2309153
NDUFB8	1.9152234
NDUFB9	2.2293875
NDUFC1	1.9321306
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PNKD	0.46399283
PNKP	1.6162708
PNMA2	1.1595333
PNN	0.8245323
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PNP	3.9839323
PNP2	0.5746398
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PNPLA6	1.0874331
PNPLA7	3.4673536
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PNPT1	2.5622542
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PNRC2	1.2302387
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POFUT2	0.333807
POGK	0.9634192
POGLUT1	1.6096876
POGZ	1.7265916
POLA2	0.9918723
POLB	1.9440134
POLD2	0.6042123
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POLM	0.88034844
POLR1A	2.5246136
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POLR1D	1.1070569
POLR1E	2.2104166
POLR2B	1.7053254

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POLR2M	1.2208822
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PON3	1.2146094
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POP5	1.8087051
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PPIL4	1.2823107
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PYGO2	1.6501024
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RCAN1	3.113497
RCAN2	1.9588883
RCBTB1	2.027078
RCBTB2	1.1933653
RCC2	1.9235704
RCCD1	0.7887912
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RDX	1.0065596
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RECQL5	0.38789225
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REG3G	1.6734273
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RELB	1.4823511
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RHOC	2.7403939
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RHOT1	1.2138493
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RNLS	0.5466826
RNMT	1.6766679
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RNPEP	1.1039755
RNPEPL1	0.7693436
RNPS1	1.6210535
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RNU1B6	1.3751953
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ROM1	0.6369698
ROMO1	1.9083116
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RPL34-PS1	0.91723895
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RPP38	2.1276739
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RPRD1B	0.70791554
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RPS11-PS1	1.4334285
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RSPH3A	1.1212757
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RSPRY1	1.980057
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RUFY3	1.7093842
RUNDC1	1.5167634
RUNDC3B	1.7512865
RUNX1	0.6101053
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RWDD4A	0.7688768
RXRA	2.3270087
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SAE1	0.7662575
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SAMD1	1.0183914
SAMD10	1.4928992
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SAMSN1	1.598048
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SCARB1	2.5341952
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SCFD1	2.1751478
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SCG5	1.600347
SCIMP	1.1563385
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SCPEP1	2.2716935
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SDHA	2.52544
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SWT1	1.08236
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SYMPK	2.1616714
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SYNJ1	1.0998604
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SYS1	2.0647242
SYT1	3.0129232
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SYVN1	3.8489826
SZRD1	1.9422691
SZT2	0.6582644
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TEFM	1.4439728
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TEP1	1.0151422
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THEM7	1.7336125
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THOC3	1.9064248
THOC5	2.130388
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THOC7	1.6514885
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TRPM2	1.5095618
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TSFM	1.079263
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TSN	1.2216742
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TTPAL	2.2960684
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TTYH2	2.4599178
TUBA1B	0.4064467

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TUBB2A	2.7173913
TUBB2A-PS2	2.3955395
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TUBE1	0.38651228
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TUFM	2.6951592
TUFT1	0.46551156
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TVP23B	1.6653378
TWF1	2.1966717
TXLNA	0.98151803
TXN1	2.2896998
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TXNDC11	2.388312
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TXNDC9	1.8962886
TXNL1	1.649863
TXNL4A	1.6665795
TXNL4B	0.73262095
TXNRD1	3.4853232
TXNRD2	2.6432254
TYMP	2.786442
TYMS-PS	0.7226186
TYSND1	1.7050526
TYW1	1.0665421
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U2AF1	1.7632735

U2SURP	0.96837234
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UBA1	1.454375
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UBAC1	1.7919137
UBALD1	2.1523998
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UBAP1	2.5243862
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UBN2	0.6811631
UBP1	1.525208
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UBTD1	1.5407374
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UBXN1	1.9930379
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UBXN6	2.2698452
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UCL4	2.4500473
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UCK1	2.1502593
UCK2	2.1957405
UCKL1	1.8513772
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UHMK1	0.35205913
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ULK1	2.4103692
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ULK3	2.0902297
UMODL1	1.7320031
UMPS	2.7013333
UNC119B	3.5452654
UNC45A	1.8644407
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UNC93B1	1.7959096
UNG	3.4591033
UNK	3.1086786
UOX	9.03797
UPB1	7.8422203
UPF1	0.4251597
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URI1	1.474539
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USE1	1.3140752
USF1	0.51361823
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USP1	1.7162864
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UVRAG	1.5183551
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VAMP2	0.29885602
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VANGL1	1.3047063
VAPA	1.687619
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VARS	2.4935234
VASH1	1.2347867
VASP	1.2247612
VAT1	0.5924084
VAV1	1.4587705
VAX2	1.6331813
VBP1	1.1348073
VCAM1	1.2052796
VCAN	0.9712167
VCP	2.1617224
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VCPKMT	1.7261817
VDAC1	1.0774558
VDAC2	1.2548645
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VEGFB	1.6280625
VEGFC	1.9035718
VGf	0.47711587
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VILL	1.9799845
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VIPAS39	1.2311423
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VMA21	1.788801
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VMN1R173	1.8144424
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VNN1	2.351352
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VPS25	1.8509576
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VPS28	1.6117384
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VPS39	1.1236188
VPS41	1.1416614
VPS45	0.41145325
VPS4B	1.8601716
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VPS54	1.0014837
VPS9D1	0.63501096
VRK2	0.733273
VRK3	2.126476
VSIG4	4.1426697
VTA1	1.8815811
VTI1A	0.6636181
VTI1B	1.7395308
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VWA3B	1.4214971
VWA5A	1.1776941
VWA8	2.9834054
VWA9	1.1628501
VWCE	7.0554514
WAC	1.1515257
WAPAL	2.4258378
WARS	1.2772787
WARS2	0.6731839
WASF2	0.9502213
WASH	1.2973635
WASL	1.47661
WBP11	2.1840522
WBP1L	3.8667061
WBP2	1.6087005
WBP5	1.3563731
WBSCR16	3.055156
WBSCR22	1.0234978
WBSCR27	0.6326487
WDFY2	0.43931246
WDFY3	1.1797333
WDR1	2.3461392
WDR11	1.2580211
WDR12	2.172766
WDR20	0.70405316
WDR24	1.9141686
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WDR31	2.7139885
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WDR45	1.0795186
WDR45B	1.6107557
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WDR48	1.7558925
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WDR74	2.120856
WDR75	1.3506567
WDR77	1.3598192
WDR81	2.1420777
WDR82	1.075938
WDR83	1.5806835
WDR83OS	1.20384
WDR89	3.5338147
WDR91	0.75997424
WDR92	3.8108413
WDTC1	0.73486924
WDYHV1	1.3061371
WFDC17	4.026886
WFDC18	2.6249478
WFDC5	1.4410582
WFS1	2.3059876
WHAMM	2.7184522
WHSC1L1	1.2208788
WIPF2	1.9174564
WIPI1	0.5576589
WIPI2	2.444886
WIZ	1.9994771
WNT10A	3.9796934
WRAP53	0.3653581
WRAP73	1.5414908
WRNIP1	2.874458
WSB1	2.4579947
WTAP	1.845689
WVOX	0.8829229
WWP2	2.1224082
XAB2	0.61475587
XAF1	2.74668
XBP1	3.7264204
XCL1	0.2909379
XDH	3.3872588
XIAP	1.3179333
XIST	2.7666967
XKR8	2.298951
XKR9	2.8100166
XLR3A	1.1602399
XLR3B	1.5550056
XPA	2.8773644

XPC	0.70402694
XPNPEP1	1.9780667
XPO1	0.92230487
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XPO5	1.2536447
XPO6	1.9232912
XPOT	1.6998379
XPR1	1.0867612
XRCC4	1.5040405
XRCC5	1.8828385
XRCC6	1.3277957
XRN1	0.8992343
XRN2	2.0218642
XYLB	3.9069831
XYLT2	1.4169362
YAE1D1	1.2169683
YAF2	1.0270417
YAP1	0.7962773
YARS	1.3978579
YARS2	2.8101246
YBX1	0.8293669
YBX3	1.2213681
YEATS4	1.1070697
YES1	1.6000705
YIF1A	3.194813
YIF1B	1.1932371
YIPF1	1.3480852
YIPF2	1.7318723
YIPF3	1.1760709
YIPF4	1.5874708
YIPF5	2.6226127
YIPF6	0.9573798
YKT6	1.012974
YME1L1	2.1956134
YOD1	2.697273
YPEL2	2.0507312
YPEL5	1.9291399
YRDC	2.467294
YTHDC2	2.1687722
YTHDF1	1.252465
YTHDF2	1.4920204
YTHDF3	1.2849772
YWHAB	0.7647989
YWHAE	1.776139
YWHAG	1.6296256



YWHAH	1.0395105
YWHAQ	0.8762562
YWHAZ	0.7005193
YY1	1.1880963
ZADH2	0.7000334
ZBED5	1.3092237
ZBED6	1.744904
ZBP1	3.4072306
ZBTB10	1.7087986
ZBTB11	0.8225641
ZBTB12	0.5421717
ZBTB16	2.7988498
ZBTB18	1.056617
ZBTB2	0.9480455
ZBTB20	1.7697284
ZBTB22	1.1335442
ZBTB24	0.5622597
ZBTB25	1.4245732
ZBTB26	1.240202
ZBTB33	1.1880696
ZBTB34	0.45571303
ZBTB39	1.7561078
ZBTB40	0.9917338
ZBTB43	2.1760762
ZBTB48	1.3320346
ZBTB5	1.1727936
ZBTB6	0.8088329
ZBTB7A	0.71556973
ZBTB7B	1.3234365
ZBTB8B	1.0886917
ZBTB8OS	2.236912
ZBTB9	0.39233708
ZC3H11A	1.679198
ZC3H12A	1.8815198
ZC3H12C	1.1898198
ZC3H12D	0.37791038
ZC3H13	2.333999
ZC3H14	0.42702365
ZC3H15	2.1218545
ZC3H18	1.5520365
ZC3H3	1.1573722
ZC3H7A	2.3147862
ZC3H7B	0.38950706
ZC3HAV1	1.8307283
ZC3HC1	1.1284969

ZCCHC10	0.80238056
ZCCHC11	2.6349795
ZCCHC14	0.86116934
ZCCHC17	1.0977776
ZCCHC2	1.4844716
ZCCHC24	2.0577266
ZCCHC3	0.79974556
ZCCHC6	1.6856544
ZCCHC7	1.6466653
ZCCHC8	1.7765391
ZCCHC9	3.257332
ZCRB1	1.5586846
ZDHHC12	2.5297587
ZDHHC13	2.267679
ZDHHC16	1.7049053
ZDHHC17	1.1412086
ZDHHC18	0.44532943
ZDHHC2	1.5861261
ZDHHC20	0.84559107
ZDHHC21	0.70820355
ZDHHC24	1.6393743
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ZDHHC5	2.0933254
ZDHHC6	2.4202578
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ZDHHC9	1.1700413
ZER1	0.83594584
ZFAND1	1.6811621
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ZFAND3	1.0718648
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ZFAND6	2.0893576
ZFAT	0.630816
ZFC3H1	2.3735263
ZFHX4	2.6428874
ZFML	0.8903706
ZFP1	1.0251067
ZFP105	0.59010863
ZFP106	1.5792634
ZFP110	1.8196533
ZFP113	1.6373193
ZFP119B	1.7870791
ZFP120	0.89897966

ZFP128	0.63663197
ZFP131	1.6568224
ZFP133-PS	2.9656498
ZFP14	1.2368484
ZFP146	0.8893435
ZFP148	0.59755635
ZFP180	1.8924615
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ZFP275	1.9204361
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ZFP280D	1.0862038
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ZFP35	1.2809451
ZFP354A	0.422251
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ZFP36L2	0.84445596
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ZFP811	1.2940509
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ZFPL1	0.62326884
ZFPM1	2.3938677
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ZGLP1	0.3593061
ZHX1	1.0518959
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ZKSCAN1	1.770015
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ZMAT1	0.87430024
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ZMAT5	0.8395529
ZMIZ1	0.4163816
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ZMPSTE24	1.9877212
ZMYM2	0.8141873
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ZMYM6	1.0547769
ZMYND15	1.122772
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ZMYND8	0.3938992
ZNFX1	1.9758556
ZNHIT1	2.4699857
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ZNHIT3	0.7472191
ZNHIT6	1.2219512
ZNRD1	1.124006
ZNRD1AS	2.247523
ZNRF1	3.0695922
ZNRF2	1.8060188
ZPR1	3.3598835
ZRANB1	1.9015925
ZRANB2	1.8171413
ZRSR1	0.9823892
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ZSWIM3	0.60669017
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ZUFSP	1.7766192
ZW10	1.9985969
ZWINT	3.3023264
ZXDB	0.25377607
ZXDC	1.1263449
ZYG11B	1.4737761
ZYX	2.4390628
ZZEF1	0.9962504
ZZZ3	1.5741413