Gene symbol Module assignment

AAAS Not significant **AACS** Not significant Not significant AAK1 **AAMDC** Not significant **AAMP** Not significant **AARS** Not significant AARS2 Not significant **AASDH** Not significant **AASDHPPT** Not significant **AATF** Not significant ABCA5 Not significant ABCA7 Not significant ABCB7 Not significant ABCC1 Not significant Not significant ABCC10 Not significant ABCC2 Not significant ABCC5 ABCD1 Not significant ABCD3 Not significant Not significant ABCD4 ABCE1 Not significant Lymph late up ABCF1 ABCF2 Not significant ABCG2 Not significant ABHD12 Not significant Not significant ABHD13 ABHD16A Global late down

ABHD17A B down

ABHD18 Not significant Not significant ABHD3 ABI1 Not significant ABI2 Not significant ABL1 Not significant Not significant ABLIM1 Global down **ABR** Global late down **ABRACL** ABRAXAS1 Not significant ABRAXAS2 Not significant Not significant ACAA1 ACAA2 Not significant **ACACA** Not significant Not significant ACAD9 Not significant **ACADM**

Not significant

ACADS

ACADSB Not significant **ACADVL** Not significant ACAP1 Not significant Mono late down ACAP2 ACAP3 Not significant ACAT1 Not significant ACBD3 Not significant ACBD6 Not significant **ACCS** Not significant ACD Not significant **ACLY** Not significant ACO₂ Not significant ACOT13 Not significant ACOT7 Not significant ACOT9 Not significant Not significant ACOX1 Not significant ACP2 ACP6 Not significant ACSF2 Not significant ACSF3 Not significant ACSL1 Mono late up ACSL3 Not significant ACSL4 Mono early up Not significant ACSL5

B down **ACTB** ACTG1 B down

Not significant ACTL6A ACTN1 Not significant Global down ACTN4 ACTR10 Not significant Not significant ACTR1A ACTR1B Not significant

ACTR2 B down ACTR3 NK mid up ACTR5 Not significant Not significant ACTR6 ACTR8 Not significant **ADAL** Not significant ADAM10 Not significant Not significant ADAM15 ADAM17 Not significant ADAM23 Global late down

ADAM8 B down **ADAR** Global up ADCK2

Not significant

ADCK5
ADCY4
ADCY7
ADCY7
ADCY9
Not significant
Mono late down
Not significant

ADD1 B down ADD3 Mono early up ADGRE5 Not significant ADGRF3 Not significant ADGRL1 Not significant Not significant ADI1 ADIPOR1 Mono late down ADIPOR2 Not significant **ADK** Not significant **ADNP** Not significant ADNP2 Not significant Not significant ADORA2A Not significant **ADPGK** ADPRHL2 Not significant Not significant Not significant

ADRM1 **ADSL ADSS** Not significant AEBP2 Not significant **AFDN** Not significant AFF1 Not significant AFF4 Mono early down **AFTPH** Not significant **AGA** Not significant AGAP2 Not significant Not significant **AGER**

AGER Not significant
AGFG1 Not significant
AGGF1 Not significant
AGK Not significant
AGL Not significant
AGO1 Not significant
AGO2 Not significant
AGO3 Not significant

AGO4 Not significant
AGPAT1 Not significant
AGPAT5 Not significant
AGPS Not significant
AGTPBP1 Not significant
AGTRAP Mono late up

AGTRAP Mono late up
AHCTF1 Mono early down
AHCYL1 Not significant
AHCYL2 Not significant

AHDC1
AHI1
Not significant
AHRR
Not significant
AHSA1
Global down
AIFM1
Not significant
Not significant
AIG1
Not significant
AIM2
Global up
AIMP1
Not significant

AIM2 AIMP1 Not significant AIMP2 Not significant Not significant **AIP** AK2 Mono late up AKAP1 Not significant AKAP10 Not significant AKAP11 Not significant AKAP12 Not significant Not significant AKAP17A Not significant AKAP5 **AKAP7** Not significant AKAP8L Not significant AKIP1 Not significant Not significant AKIRIN1 **AKIRIN2** Not significant

AKR1A1 Mono early down AKR1B1 Not significant AKT1 Not significant AKT2 Not significant AKT3 Not significant **AKTIP** Not significant ALAS1 Mono late up Not significant **ALCAM** ALDH16A1 Not significant ALDH18A1 Not significant

Mono late down

ALDH2 B down

AKNA

ALDH3A2 Not significant Not significant ALDH5A1 ALDH6A1 Not significant ALDH9A1 Not significant **ALDOC** Not significant Not significant ALG1 ALG11 Not significant ALG12 Not significant Not significant ALG13 Not significant ALG2 ALG3 Not significant

ALG5 Not significant ALG6 Not significant ALG8 Not significant Not significant ALKBH1 ALKBH2 Not significant ALKBH4 Not significant ALKBH5 Not significant ALKBH7 Not significant ALKBH8 Not significant ALMS1 Not significant ALOX5AP Not significant ALPK1 Global up **ALYREF** Not significant AMBRA1 Not significant AMD1 Not significant **AMFR** Mono late down AMIGO1 Not significant Not significant AMMECR1L AMPD2 Not significant **AMT** Not significant AMY2B Not significant AMZ2 Not significant ANAPC1 Not significant ANAPC10 Not significant ANAPC11 Not significant ANAPC13 Not significant ANAPC15 Not significant ANAPC16 Not significant ANAPC2 Not significant ANAPC4 Not significant ANAPC5 Not significant ANGEL1 Not significant ANGEL2 Not significant ANK3 Not significant ANKFY1 Not significant Not significant **ANKH** ANKIB1 Not significant ANKRA2 Not significant ANKRD10 Not significant Not significant ANKRD13A ANKRD13C Not significant ANKRD13D Mono early down ANKRD23 Not significant

ANKRD27 ANKRD28 Not significant

Not significant

ANKRD35	Not significant
ANKRD37	Not significant
ANKRD44	Global down
ANKRD46	Not significant
ANKRD49	Not significant
ANKRD6	Not significant
ANKS3	Not significant
ANKS6	Not significant
ANKZF1	Not significant
ANO6	Global late down
ANP32A	Not significant
	_
AND 325	Not significant
ANTYPO	Mono late up
ANTXR2	Not significant
ANXA1	Global late down
ANXA11	Mono late down
ANXA2	B down
ANXA5	Mono late down
ANXA6	Global down
ANXA7	Not significant
AP1B1	Not significant
AP1G1	Not significant
AP1G2	Not significant
AP1M1	Not significant
AP1S1	Not significant
AP1S2	Mono late down
AP2A2	Not significant
AP2B1	Not significant
AP2M1	Not significant
AP2S1	Not significant
AP3B1	Not significant
AP3D1	Not significant
AP3M1	Not significant
AP3M2	Not significant
AP3S1	Not significant
AP4B1	Not significant
AP4E1	Not significant
AP4S1	
	Not significant
AP5B1	Not significant
AP5M1	Not significant
AP5Z1	Not significant
APAF1	Not significant
APBA2	Not significant
APBA3	Not significant
APBB1	Not significant

APBB1IP Global down APBB2 Not significant **APC** Global down Not significant **APEH** Mono early down APEX1 API5 Not significant **APIP** Not significant APLP2 Mono early up APOBEC3C Not significant Not significant APOBEC3F APOBEC3G Global up APOBEC3H Global up

APOBR Mono late down

APOL₂ Global up APOL6 Global up **APOO** Not significant Not significant **APOOL** APP Not significant APPBP2 Not significant APPL2 Not significant **APRT** Not significant **APTX** Not significant **AOR** Not significant **ARAF** Not significant ARAP1 Not significant ARAP2 Lymph late up

ARCN1 Not significant AREL1 Not significant ARF4 Not significant ARF5 Not significant

ARF6 B down

ARFGAP1 Not significant ARFGAP2 Not significant ARFGAP3 Not significant ARFGEF1 Not significant ARFGEF2 Not significant ARFIP1 Not significant ARFIP2 Not significant ARFRP1 Not significant Not significant ARHGAP10 ARHGAP12 Not significant ARHGAP15 Mono late down ARHGAP18 Not significant Not significant ARHGAP19 ARHGAP25 Mono late down ARHGAP26 Not significant

ARHGAP27 B down

ARHGAP35 Not significant
ARHGAP4 Mono early down
ARHGAP45 Clobal down

ARHGAP45 Global down ARHGAP5 Not significant ARHGAP9 Not significant **ARHGDIA** Global down ARHGEF1 Global down ARHGEF11 Not significant ARHGEF12 Not significant ARHGEF16 Not significant ARHGEF2 Not significant

ARHGEF3 Global up

ARHGEF6 Mono early down Not significant ARHGEF7 Not significant ARHGEF9 Mono early down ARID1A ARID1B Not significant ARID2 Not significant Mono early down ARID4A ARID5A Not significant

ARID5B
ARIH1
ARIH2
ARL1
ARL13B
ARL14EP
ARL15
ARL15
Lymph late up
Not significant
Not significant
Not significant
Not significant
Not significant
Not significant

ARL13

ARL2

ARL3

ARL3

ARL4A

ARL4C

ARL5A

Not significant

ARL5A Not significant
ARL6IP4 Not significant
ARL8A Not significant
ARL8B Mono late up

ARMC10 Not significant
ARMC2 Not significant
ARMC7 Not significant
ARMC8 Not significant
ARMCX1 Not significant

ARMCX1 Not significant
ARMCX2 Not significant
ARMCX3 Not significant

ARMCX4 Not significant

ARMCX5
ARMT1
ARNT
ARNT
ARNT
ARNT
ARPC1A

Not significant

ARPC1A Global late down ARPC2 ARPC3 Mono late down ARPC4 Not significant ARPC5L Not significant Not significant ARPP19 ARRB2 Global late down ARRDC1 Not significant ARRDC2 Not significant ARRDC3 Not significant **ARSK** Not significant Not significant ARV1 **ARVCF** Not significant Not significant ASAH1 ASAP1 Not significant ASB3 Not significant ASB6 Not significant ASB8 Not significant ASCC1 Not significant

ASCC2 Not significant ASCC3 Mono early down ASF1A Not significant ASF1B Not significant ASH2L Not significant Not significant ASNA1 **ASNS** Not significant Not significant ASNSD1

ASPH

ASPSCR1 Not significant
ASRGL1 Not significant
ASTE1 Not significant
ASXL1 Not significant
ASXL2 Not significant
ATAD1 Not significant

Not significant

ATAD2 Not significant
ATAD5 Not significant
ATE1 Not significant
ATF1 Not significant
ATF2 Not significant
ATF3 Not significant

ATF6 Not significant

ATF6B Not significant ATF7 Not significant ATF7IP2 Not significant Not significant ATG101 ATG13 Not significant ATG16L1 Not significant ATG2A Not significant ATG2B Not significant ATG3 Not significant ATG4B Not significant ATG4C Not significant ATG5 Not significant **ATIC** Not significant ATL2 Not significant ATL3 Not significant **ATM** Global down Not significant **ATMIN** Mono late up ATOX1 ATP10D Not significant ATP11C Not significant ATP13A1 Not significant ATP13A2 Not significant ATP13A3 Not significant ATP1A1 B down

ATP1B3 Not significant ATP2A2 Not significant

ATP2A3 B down

ATP2B1 Global down ATP2B4 Global down ATP2C1 Not significant ATP5F1A Global late down ATP5F1B Not significant ATP5F1C Not significant ATP5IF1 Not significant ATP5MC1 Not significant ATP5MC2 Not significant ATP5MC3 Not significant ATP5MD Not significant ATP5ME Mono late up ATP5MPL Not significant ATP5PB Not significant ATP5PD Mono late up ATP5PF Not significant

Global late down

Not significant

ATP5PO

ATP5S

ATD6 A D2	Mana aarly un
ATP6AP2	Mono early up
ATP6V0A2	Not significant
ATP6V0B	Not significant
ATP6V0E1	Not significant
ATP6V1B2	Mono late up
ATP6V1C2	Not significant
ATP6V1D	Not significant
ATP6V1E1	NK mid up
ATP6V1G1	Not significant
ATP6V1H	Not significant
ATP7A	
	Not significant
ATP8A1	Not significant
ATP8B2	Not significant
ATP9B	Not significant
ATPAF2	Not significant
ATR	Not significant
ATRAID	Not significant
ATRIP	Not significant
ATRN	Not significant
ATXN1	Not significant
ATXN10	Not significant
ATXN1L	Not significant
ATXN2	Not significant
ATXN2L	Not significant
ATXN3	Not significant
ATXN7	Not significant
ATXN7L1	Not significant
	Not significant
ATXN7L2	•
ATXN7L3	Not significant
ATXN7L3B	Not significant
AUP1	Not significant
AVEN	Not significant
AVL9	Not significant
AVPR2	Not significant
AXIN1	Not significant
AZI2	Not significant
AZIN1	Not significant
B2M	Global up
B3GALNT2	Not significant
B3GAT2	Not significant
B3GNT2	Not significant
B3GNTL1	Not significant
B9D2	Not significant
BABAM1	Not significant
BABAM2	Not significant

BACE2 Not significant BACH1 Mono late down Not significant BACH2 Not significant **BAD** BAG3 Not significant BAG4 Not significant BAG5 Not significant BAG6 Not significant BAHD1 Not significant BAIAP3 Not significant BANF1 Not significant BAP1 Not significant BARD1 Not significant Not significant BAT1 **BATF** Mono late up Lymph late up BAZ1B Not significant BAZ2A BAZ2B Mono early down BBS2 Not significant Not significant BBS4 BBS7 Not significant BBS9 Not significant BBX Lymph late up BCAP29 Not significant BCAP31 Not significant BCAS2 Not significant BCAS3 Not significant BCAT2 Not significant **BCCIP** Not significant BCDIN3D Not significant Not significant **BCKDK** BCL10 Not significant BCL11B Not significant BCL2 Not significant BCL2A1 Mono early up Not significant BCL2L13 BCL2L2-PABPN1 Mono late down BCL6 Mono early up BCL7B Not significant Not significant BCL7C BCL9L Not significant BCLAF1 Mono early down BCLAF3 Not significant Not significant **BCOR BCR** Not significant

BCS1L Not significant Not significant BDH1 BDH2 Not significant Not significant BECN1 BEND5 Lymph late up BET1 Not significant BEX1 Not significant BEX2 Not significant BEX3 Not significant BEX4 Not significant BHLHE40 Mono late down BICD1 Not significant BICD2 Not significant BICDL1 Not significant **BICRAL** Not significant Not significant BID Mono late down BIN1 Global late down BIN₂ BIN₃ Not significant BIRC2 Global up Global down BIRC6 Mono early down Not significant Not significant Not significant

BIVM-ERCC5 BLM BLMH BLOC1S2 BLOC1S6 Not significant Not significant **BLVRA BLVRB** Not significant Not significant BMP2K BMPR2 Not significant Not significant BNIP1 BNIP2 Not significant BNIP3L Not significant BOD1 Not significant BOLA2B Not significant BOLA3 Not significant BOP1 Not significant **BORCS7** Not significant

BPGM Not significant
BPHL Not significant
BPNT1 Not significant
BRAF Not significant
BRAP Not significant
BRAT1 Not significant
BRAT1 Not significant
BRCA1 Not significant

BRD1 Not significant BRD3 Not significant BRD4 Mono early down Global down BRD7 BRD8 Not significant BRD9 Not significant BRF1 Not significant BRF2 Not significant BRI3 Mono late up **BRI3BP** Not significant BRIP1 Not significant BRIX1 Not significant B down

BRK1 Not significant BRMS1 BRMS1L Not significant **BROX** Not significant Mono early down BRPF1 BRPF3 Not significant BRWD3 Not significant BSCL₂ Not significant BSDC1 Not significant **BSG** Not significant Not significant BST1 BST2 Mono early up BTAF1 Not significant BTBD11 Not significant

Not significant BTBD2 BTBD6 Not significant BTBD7 Not significant BTBD8 Not significant Not significant **BTD** BTF3 B/T early up BTF3L4 Not significant BTG1 B/T early up

BTG2 Not significant
BTG3 Not significant
BTLA Not significant
BTN2A2 Not significant
BTN3A1 Not significant
BTN3A3 Not significant

BTRC Not significant
BUB3 Not significant
BUD13 Not significant
BUD23 B/T early up

BUD31 Not significant

BZW1 Not significant
BZW2 Not significant
C10H20orf24 Mono late up
C10orf128 B. down

B down C10orf128 C10orf76 Not significant C11H12orf10 Not significant C11H12orf29 Not significant C11H12orf57 Mono late down C11H12orf73 Not significant C11orf68 Not significant C12orf49 Not significant C12orf65 Not significant C13H2orf49 Not significant C14H11orf1 Not significant C14H11orf58 Mono late up C15H9orf72 Not significant Not significant C15H9orf78 Not significant C15H9orf85 C15orf39 Mono late down

C16H17orf49 Not significant
C16orf86 Not significant
C17orf80 Not significant
C18orf21 Not significant

C18orf21 Not significant
C18orf25 Not significant
C19orf12 Not significant
C19orf47 Not significant

C19orf66 Global up
C19orf70 Not significant
C1D Not significant
C1GALT1 Not significant

C1GALT1 Not significant
C1GALT1C1 Not significant
C1H1orf123 Not significant
C1H1orf35 Not significant
C1H1orf52 Not significant
C1QBP Not significant
C1RL Not significant

Clorf131 Not significant
Clorf159 Not significant
Clorf174 Not significant
Clorf43 Not significant
Clorf56 Not significant
Clorf74 Not significant

C20H16orf54 Global late down
C20H16orf58 Not significant
C20H16orf72 Not significant

C20H16orf87 C21orf2 C2CD2 C2CD2L C2CD3 C2CD5 C2H3orf38	Not significant
C2H3orf58 C2orf69	Not significant Not significant
C3H21orf33	Not significant
C3H21orf59	Not significant
C3H21orf91	Not significant
C3H7orf43	Not significant
C3H7orf50	Global up
C4H6orf203	Not significant
C4H6orf52	Not significant
C4H6orf62	Global up
C4H6orf89	Not significant
C5H4orf27 C5H4orf33	Not significant Not significant
C5H4orf46	Not significant
C5orf42	Not significant
C6H5orf22	Not significant
C6H5orf24	Not significant
C6H5orf30	Not significant
C6H5orf34	Not significant
C6H5orf63	Not significant
C6orf120	Not significant
C6orf125	Not significant
C6orf48	Not significant
C7H14orf28	Not significant
C7H15orf40	Not significant
C7orf26	Not significant
C7orf55-LUC7L2	Mono early down
C8H8orf59	Not significant
C8orf33 C8orf82	Not significant Not significant
C9H10orf88	Not significant
CA11	Not significant
CA5B	Not significant
CA6	Lymph late up
CAAP1	Not significant
CAB39	Not significant
CABIN1	Not significant
CACNA1F	Not significant

CACNB3 Not significant CACUL1 Not significant **CACYBP** Global down Not significant CALCOCO1 CALCOCO2 Not significant Not significant CALD1 CALHM6 Mono late up **CALR** Not significant **CALU** Not significant Not significant CAMK2D CAMK2G Not significant Not significant CAMK4 CAMKK1 Not significant CAMKK2 Mono late down CAMSAP1 Not significant CAMSAP2 Not significant Not significant CAND1 CANT1 Not significant **CANX** Not significant CAP1 Global late down **CAPG** Mono late up CAPN1 Not significant CAPN10 Not significant Not significant CAPN12 CAPN15 Not significant CAPN2 Global up CAPN3 Not significant CAPN7 Not significant Not significant CAPRIN1 CAPRIN2 Not significant NK mid up CAPZA1 CAPZA2 B/T early up **CAPZB** Global down CARD11 Not significant CARD19 Not significant CARHSP1 Not significant CARM1 Not significant CARMIL1 Not significant CARMIL2 Not significant Not significant CARNMT1 **CARS** Not significant CARS2 Not significant Not significant CASC4 CASD1 Not significant

Not significant

CASK

CASP1 Global up CASP10 Not significant CASP12 B/T early up Not significant CASP2 CASP4 Not significant CASP7 Not significant CASP8 Not significant CASP8AP2 Mono early down CASP9 Not significant **CAST** Mono early down CAT Mono late down **CBFB** Not significant **CBL** Not significant **CBLB** Not significant CBR1 Not significant CBR4 Not significant Not significant CBWD1 CBX1 Not significant CBX3 Not significant CBX4 Not significant CBX5 Not significant

CBX6 B down

CBX7 Not significant CC2D1A Not significant CC2D1B Not significant CCAR1 Mono early down CCAR2 Not significant CCDC107 Not significant Not significant CCDC112 CCDC115 Not significant Not significant CCDC12 CCDC124 Not significant CCDC127 Not significant CCDC130 Not significant CCDC137 Not significant CCDC14 Not significant CCDC167 Not significant CCDC17 Not significant CCDC174 Not significant

Not significant CCDC18 CCDC186 Not significant CCDC22 Not significant Not significant CCDC25 CCDC34 Not significant CCDC43 Not significant

CCDC47 Not significant CCDC50 Not significant Not significant CCDC58 CCDC6 Not significant CCDC66 Not significant CCDC69 Global down CCDC7 Not significant CCDC77 Not significant CCDC82 Not significant CCDC84 Not significant CCDC85B Not significant CCDC86 Not significant CCDC88A B down

CCDC89 Not significant CCDC9 Not significant CCDC90B Not significant Not significant CCDC91 CCDC93 Not significant CCDC94 Not significant CCHCR1 Not significant Not significant CCM₂ CCNB1 Not significant **CCNC** Not significant CCND1 Not significant CCND2 Not significant CCND3 Global up

Not significant CCNDBP1 CCNG1 Mono late down CCNG2 Not significant CCNH Not significant **CCNI** Global late down **CCNI** Not significant **CCNK** Not significant CCNL1 Mono late down CCNL2 Global down Not significant **CCNO** CCNT2 Not significant **CCNY** Not significant

CCPG1 NK mid up CCR4 Not significant CCR6 Not significant CCR7 Not significant Not significant CCR9 **CCSAP** Not significant

Not significant

CCP110

CCSER2 Global late down CCT2 Mono late down CCT3 Global down CCT4 Not significant CCT5 Mono late down CCT6A Global down CCT7 Not significant CCT8 Not significant CD109 Not significant CD151 Not significant CD164 Not significant CD2 Not significant CD200 Not significant CD200R1 Not significant CD200R1L Not significant CD247 Not significant Not significant CD27 CD274 Not significant CD28 Not significant CD2AP Not significant CD2BP2 Not significant CD320 Not significant **CD37** Global late down **CD38** Not significant CD3D NK mid up CD3E Not significant CD3G Not significant CD4 Not significant Not significant CD40LG **CD44** Not significant Not significant **CD46 CD47** Not significant **CD48** B/T early up CD₅ Not significant **CD52** Global late down

CD53
CD58
Not significant
CD6
Not significant
CD63
Mono late up
CD69
CD74
Mono late down

CD79A B down CD79B B down

CD81 Global late down CD82 Not significant

CD83	Mono late down
CD84	Not significant
	_
CD8B	Not significant
CD9	Not significant
CD96	Not significant
CD99	Not significant
	-
CD99L2	Not significant
CDADC1	Not significant
CDAN1	Not significant
CDC123	Not significant
CDC14A	Not significant
CDC16	Not significant
CDC23	Not significant
CDC25B	Not significant
CDC26	Not significant
CDC27	Not significant
CDC37	Not significant
CDC37L1	Not significant
CDC40	Not significant
CDC42	B/T early up
CDC42BPB	Not significant
CDC42EP3	Mono early up
CDC42SE1	Not significant
CDC42SE2	Global late down
CDC5L	Not significant
CDC73	Not significant
	-
CDCA4	Not significant
CDIPT	Not significant
CDK10	Not significant
CDK12	Not significant
CDK16	Not significant
	_
CDK17	NK mid up
CDK19	Not significant
CDK2	Not significant
CDK2AP1	Not significant
CDK3	Not significant
	-
CDK4	Not significant
CDK5	Not significant
CDK5R1	Not significant
CDK5RAP1	Not significant
CDK5RAP2	Not significant
CDK5RAP3	Not significant
	-
CDK6	Not significant
CDK7	Not significant
CDK8	Not significant

CDKAL1 Not significant CDKL2 Not significant CDKN1A Mono late down Global late down CDKN1B CDKN2AIP Not significant CDKN2D Mono early up CDR2 Not significant CDS2 Not significant CDV3 Global late down **CDYL** Not significant **CEBPG** Not significant **CEBPZ** Not significant

CELF1 B down **CENPB** Not significant **CENPC** Mono early down **CENPE** Not significant **CENPF** Mono late up CENPI Not significant **CENPK** Not significant **CENPS-CORT** Not significant Not significant CENPX **CEP104** Not significant **CEP112** Not significant CEP120 Not significant **CEP128** Not significant **CEP131** Not significant **CEP135**

Not significant **CEP152** Not significant Not significant **CEP162 CEP164** Not significant **CEP170** Global down CEP19 Not significant CEP250 Not significant CEP290 Not significant **CEP295** Not significant CEP350 Mono early down

CEP41 Not significant
CEP44 Not significant
CEP57 Not significant
CEP57L1 Not significant
CEP63 Not significant
CEP68 Not significant
CEP70 Not significant

CEP78 Mono early up CEP83 Not significant

CEP85 Not significant CEP85L Not significant CEP89 Not significant CEP95 Not significant CEP97 Not significant CEPT1 Not significant **CERK** Not significant CERS5 Not significant CETN2 Not significant CFAP20 Not significant CFAP36 Not significant CFAP97 Not significant **CFD** Mono late down CFDP1 Not significant CFI Not significant CFL1 Global down CFL2 Not significant **CFLAR** Global up CFP

Mono late down **CGAS** Mono late up Global late down CGGBP1 CHAMP1 Not significant Not significant CHCHD2 CHCHD3 Not significant CHCHD7 Not significant CHCHD8 Not significant Lymph late up CHD1 CHD1L Not significant CHD4 Lymph late up CHD7 Not significant Not significant CHD8 CHD9 Mono early down CHEK2 Not significant **CHFR** Not significant CHI3L2 Not significant CHID1 Not significant

CHM Not significant CHMP2A Not significant CHMP2B Not significant Not significant CHMP4B CHMP5 Mono late up CHMP7 Not significant Not significant CHN2 Not significant CHORDC1 CHP1 Not significant

CHPF Not significant CHPF2 Not significant Not significant CHRAC1 Not significant CHRNA9 CHRNB1 Not significant Not significant CHST11 CHST12 Not significant CHST2 Not significant CHSY1 Not significant CHTF8 Not significant **CHTOP** Not significant CHUK Not significant CIAO1 Not significant CIB1 Not significant CIC Not significant **CINP** Not significant Not significant CIP2A Lymph late up CIR1 **CIRBP** B/T early up Not significant CISD1 CISD3 Not significant **CISH** Not significant CITED2 Not significant CIZ1 Not significant CKAP2L Not significant CKAP4 Mono late up CKAP5 Not significant **CKLF** Mono late down CLASP1 Not significant CLASP2 Not significant **CLASRP** Not significant CLCC1 Not significant CLCN3 Not significant CLCN6 Not significant Not significant CLDND1 CLEC16A Not significant CLEC2B Global up CLEC₂D Not significant CLIC1 Mono late up CLIC5 Global late down CLINT1 Mono early down CLIP1 Not significant Not significant CLIP4 B/T early up CLK1 CLK2 Not significant

CLK3 Not significant CLK4 Not significant CLNS1A Not significant Not significant CLP1 **CLPB** Not significant **CLPP** Not significant CLPTM1 Not significant CLPTM1L Global down **CLPX** Not significant CLTA Not significant **CLTB** Not significant **CLTC** Not significant **CLYBL** Not significant **CMAH** Not significant **CMAS** Not significant CMC1 Not significant Not significant CMC2 **CMIP** Mono early down CMPK1 Not significant CMPK2 Mono late up Mono late down CMTM3 CMTM6 B/T early up CMTM7 Not significant CMTR1 NK mid up CMYA5 Not significant **CNBP** Not significant CNDP2 Not significant CNIH1 Not significant Not significant CNIH4 CNN₂ Not significant Not significant CNNM4 CNOT1 Not significant CNOT10 Not significant CNOT2 Not significant CNOT3 Not significant CNOT4 Mono early down CNOT6 Not significant CNOT7 Not significant CNOT8 Not significant Not significant CNOT9 **CNP** Not significant CNPPD1 Not significant CNPY3 Not significant Not significant **CNST CNTROB** Not significant

COA1 Not significant COA5 Not significant COA6 Not significant Not significant **COASY** COG1 Not significant COG₂ Not significant COG3 Not significant COG4 Not significant COG₅ Not significant COG6 Not significant COG7 Not significant COIL Not significant COL4A3BP Mono early down COLGALT1 Not significant COMMD1 Not significant COMMD4 Not significant Not significant COMMD5 Global late down COMMD6 COMMD7 Not significant COMMD8 Not significant COMMD9 Not significant **COMT** Not significant **COPA** Not significant COPB1 Not significant COPB2 Not significant **COPE** Not significant COPG1 Not significant **COPRS** Not significant COPS2 Not significant COPS3 Not significant COPS4 Not significant COPS5 Not significant COPS6 Not significant COPS7A Not significant COPS7B Not significant COPS8 Not significant COPZ1 Not significant COQ2 Not significant COQ5 Not significant Not significant COQ6 COQ8A Not significant **COO8B** Not significant CORO1A B down

CORO1B Not significant CORO1C Not significant

CORO2A Mono late up CORO6 Not significant

COTL1 B down

Not significant COX10 COX11 Not significant COX14 Not significant COX15 Not significant COX16 Not significant COX18 Not significant COX₂0 Not significant COX4I1 Global late down COX5A Mono early up COX6B1 Not significant

COX6C B down COX7A2 Not significant COX7AH Not significant Not significant COX7C Mono early up COX8A **CPD** Not significant CPEB4 Not significant Not significant CPNE3 **CPQ** Not significant CPSF1 Not significant CPSF2 Not significant CPSF3 Not significant CPSF4 Not significant CPSF6 Not significant

CPSF7 Not significant CPT1A Not significant CR1 Not significant CR2 Not significant CRACR2A Not significant CRACR2B Not significant CRAMP1 Not significant **CRAT** Not significant

CRBN Not significant
CRCP Not significant
CREB1 Not significant
CREB3L4 Not significant
CREBBP Mono early down

CREBL2 Not significant
CREBRF Mono late down
CREBZF Not significant
CREG1 Mono early up

CREG1 Mono early up CRELD1 Not significant

CRELD2 Not significant Not significant **CREM** CRK Not significant Not significant CRLF3 CRNKL1 Not significant **CROCC** Not significant **CROT** Not significant CRTC2 Not significant CRTC3 B/T early up Not significant CRY1 CRY2 Not significant CRYBG1 Not significant CRYL1 Not significant **CRYZ** Not significant CRYZL1 Not significant CS Not significant **CSAD** Mono early down Mono late down CSDE1 CSE1L Not significant CSF1 B/T early up CSGALNACT2 Not significant

CSK B down

CSNK1A1 Not significant CSNK1D Not significant CSNK1E Not significant CSNK1G1 Not significant Not significant CSNK1G2 CSNK1G3 Mono late down CSNK2A1 Not significant CSNK2A2 Not significant Not significant CSNK2B CSPP1 Not significant CSRNP1 Not significant CSRP1 Not significant

CST6 Not significant **CSTB** Mono late down CSTF1 Not significant CSTF2 Not significant CSTF3 Not significant Global down CTAGE5 CTBP1 Not significant **CTBS** Not significant Not significant CTC1 Not significant CTCF

CTDNEP1 Not significant

CTDP1 Not significant CTDSP1 Global down CTDSP2 Not significant Not significant CTDSPL2 CTLA4 Not significant Not significant CTNNA1 CTNNB1 Not significant CTNNBIP1 Not significant CTNNBL1 Mono late up CTPS1 Not significant CTR9 Not significant **CTSA** Mono late up **CTSB** Not significant **CTSC** Not significant **CTSD** Mono late up **CTSH** Not significant Mono late down **CTSK** Mono late up **CTSL CTSO** Not significant **CTSS** Mono late down **CTSW** Global late down **CTSZ** Not significant CTU2 Not significant CUEDC2 Not significant CUL1 Mono late up CUL₂ Not significant CUL₃ Not significant CUL4A Not significant Not significant CUL4B CUL₅ Not significant CUL7 Not significant CUL9 Not significant **CUTA** Not significant CUTL1 Not significant CWC15 Not significant CWC22 Not significant CWC25 Not significant CWC27 Not significant CWF19L1 Not significant B/T early up CXCR4 CXCR5 Not significant CXHXorf38 Not significant Not significant CXHXorf40A CXHXorf65 Not significant CXXC1 NK mid up

CXXC5 Not significant CYB5A Not significant Not significant CYB5B Not significant CYB5D2 CYB5R3 Not significant Not significant CYB5R4 **CYBA** Mono early up CYC1 Not significant

CYFIP2 B down

CYHR1 Not significant **CYLD** Not significant CYP20A1 Not significant CYP2R1 Not significant CYP51A1 Not significant CYSLTR1 Not significant

B down CYTH1

Not significant CYTH2 **CYTIP** B/T early up DAAM1 Global down DACT1 Not significant Not significant DAD1 DAG1 Not significant DALRD3 Not significant DAP Not significant DAP3 Not significant DAPK2 Not significant Lymph late up **DARS** DAXX Not significant DAZAP1 Not significant DBF4 Not significant

DBI B down

DCAF7

DBN1 Not significant **DBNL** Mono early down **DBP** Not significant DBR1 Not significant DCAF1 Not significant DCAF11 Not significant DCAF12 Not significant DCAF15 Not significant Not significant DCAF16 DCAF17 Not significant DCAF4 Not significant Not significant DCAF5 Not significant DCAF6

Not significant

DCLRE1B Not significant DCLRE1C Not significant DCP1A Not significant DCP1B Not significant DCP2 Not significant **DCPS** Not significant **DCTD** Not significant DCTN1 Not significant DCTN2 Not significant Not significant DCTN4 DCTN5 Not significant DCTN6 Not significant DCTPP1 Not significant DCUN1D1 Not significant DCUN1D2 Not significant Not significant DCUN1D4 Not significant DCUN1D5 **DCXR** Not significant DDA1 Not significant DDB1 Not significant Not significant DDB2 DDHD1 Not significant DDHD2 Not significant Mono late down DDIT3 DDIT4 Not significant **DDOST** Not significant DDRGK1 Not significant **DDT** Not significant Global down DDX1 DDX10 Not significant Global late down DDX17 DDX18 Not significant DDX19B Not significant DDX21 Lymph late up DDX23 Not significant DDX24 NK mid up DDX27 Not significant DDX28 Not significant DDX31 Not significant Not significant DDX39A DDX3X B/T early up DDX3Y Mono early down Not significant DDX41 Global down DDX42 DDX46 Mono early down DDX47 Not significant DDX49 Not significant DDX5 Mono late down Mono late down DDX50 DDX52 Not significant DDX54 Mono late down DDX55 Not significant DDX56 Not significant DDX58 Global up DDX59 Not significant

DDX6 Not significant
DDX60 Global up
DDX60L Global up

DEAF1 Not significant DECR1 Not significant Not significant DECR2 Not significant DEDD Not significant DEDD2 DEF₆ Not significant DEF8 Not significant Not significant DEGS1 DEK Global up

DENND1B Not significant
DENND1C Not significant

DENND4A B down

DENND4B Not significant Not significant DENND4C DENND5A Not significant Not significant **DENND6A DENND6B** Not significant Not significant **DENR** DEPDC5 Not significant DERL1 Not significant DERL2 Not significant DESI2 Not significant DET1 Not significant DGAT1 Not significant DGCR6 Not significant DGCR8 Not significant **DGKA** Lymph late up

DGKD B down

DGKZ Global down
DGLUCY Not significant
DGUOK Not significant
DHDDS Global up

DHODH DHPS DHRS1 DHRS13 DHRS3 DHRS4 DHRS7 DHX15 DHX16 DHX29 DHX30	Not significant Not significant Not significant Not significant Not significant Not significant Mono early up Not significant Not significant Not significant Not significant Not significant
DHX32 DHX33	Not significant Not significant
DHX35	Not significant
DHX36	Not significant
DHX37	Not significant
DHX38	Not significant
DHX57	Not significant
DHX58	Global up
DHX8	Not significant
DHX9	Not significant
DIABLO DIAPH1	Not significant Global down
DIAPH2	Not significant
DICER1	Not significant
DIDO1	Not significant
DIEXF	Not significant
DIP2A	Not significant
DIP2C	Not significant
DIS3	Not significant
DIS3L	Not significant
DIS3L2	Not significant
DISP1	Not significant
DKC1	Not significant
DLAT	Not significant
DLD	Not significant
DLG1	Not significant
DLG3	Not significant
DLGAP4	Not significant
DLST	Not significant
DMAC1	Not significant
DMAC2 DMAP1	Not significant
DMTF1	Global up Mono late down
DMXL1	Not significant
DIINLI	ivor significant

DNAAF2	Not significant
DNAAF5	Not significant
DNAJA1	Mono early down
DNAJA2	Not significant
DNAJA4	Not significant
DNAJB1	Not significant
DNAJB11	Not significant
DNAJB12	Not significant
DNAJB14	Not significant
DNAJB4	Not significant
DNAJB6	Not significant
DNAJC1	Mono late down
DNAJC10	Not significant
DNAJC11	-
	Not significant
DNAJC15	Not significant
DNAJC15	Not significant
DNAJC16	Not significant
DNAJC17	Not significant
DNAJC19	Not significant
DNAJC2	Not significant
DNAJC21	Not significant
DNAJC24	Not significant
DNAJC25	Mono early up
DNAJC27	Not significant
DNAJC4	Not significant
DNAJC7	Not significant
DNAJC8	Not significant
DNAJC9	Not significant
DNAL4	Not significant
DNASE1L1	Global late down
DNLZ	Not significant
DNM1L	Not significant
DNM2	Not significant
DNM3	Not significant
DNMBP	Not significant
DNMT1	Lymph late up
DNMT3A	Global down
DNPEP	Mono late up
DNTTIP1	Not significant
DOCK1	Not significant
DOCK10	Not significant
DOCK11	Mono early down
DOCK3	Not significant
DOCK8	Not significant
DOCK9	Not significant
DOCKS	ivot significant

DOK1	Not significant
DOK2	Not significant
DOPEY1	Not significant
DOPEY2	Not significant
DOT1L	Not significant
DPCD	Not significant
DPEP2	Global late down
DPF2	Not significant
DPH2	Not significant
DPH3	Mono early up
DPH5	Not significant
DPH6	Not significant
DPM1	Not significant
DPM2	Not significant
DPM3	Not significant
DPP3	Not significant
DPP4	Lymph late up
DPP7	Not significant
DPP8	Not significant
DPP9	Not significant
DPY19L4	Not significant
DPY30	Not significant
DPYSL2	Not significant
DPYSL4	Not significant
DRAP1	Mono late up
DRG1	Not significant
DRG2	Not significant
DROSHA	Not significant
DSN1	Not significant
DST	Mono early down
DSTN	Not significant
DSTYK	Not significant
DTD1	Not significant
DTNB	Not significant
DTNBP1	Not significant
DTX2	Not significant
DTX3	Not significant
DUS1L	Not significant
DUS2	Not significant
DUS3L	Not significant
DUSP10	Not significant
DUSP11	Not significant
DUSP16	Not significant
DUSP18	Not significant
DUSP22	Not significant
DOSI 22	Not Significant

DUSP23 Not significant DUSP6 Mono late down Not significant DYM Global down DYNC1H1 DYNC112 Not significant DYNC1LI1 Not significant DYNC1LI2 Not significant DYNC2H1 Not significant DYNLL1 Mono late up DYNLL2 Not significant

DYNLRB1 B down DYNLT1 Mono late up DYNLT3 Not significant DYRK1A Not significant DYRK1B Not significant Global late down DYRK2 Not significant DZIP3 E2F3 Not significant E2F4 Not significant E4F1 Not significant **EAPP** Not significant EBAG9 Not significant EBNA1BP2 Not significant **EBP** Not significant

ECD Not significant ECE1 Not significant ECHDC1 Not significant ECHS1 Not significant Not significant ECI1 EC₁₂ Not significant Not significant **ECPAS ECSIT** Not significant

EDC4 Not significant EDEM2 Not significant EDEM3 Not significant Not significant EDF1 EDRF1 Not significant EEA1 Not significant **EED** Not significant Global late down EEF1A1 EEF1AKMT1

Not significant EEF1B2 Global late down EEF1D Global late down EEF1E1 Not significant EEF1G Global late down

EEF2 EEF2K EEPD1 EFCAB8 EFCC1	Global late down Not significant Not significant Not significant Not significant
EFEMP2 EFL1	Not significant Not significant
EFR3A	NK mid up
EFTUD2 EGLN1	Not significant Not significant
EGLN2	Not significant
EGLN3	Not significant
EGR1	Mono late down
EGR2	Mono late down
EHBP1	Not significant
EHBP1L1	Not significant
EHD1	Not significant
EHD4	Not significant
EHMT1	Not significant
EHMT2	Not significant
EI24	Not significant
EIF1AD EIF1AX	Not significant
EIF1B	Not significant Not significant
EIF2A	Mono late down
EIF2AK1	Not significant
EIF2AK2	Global up
EIF2AK3	Not significant
EIF2AK4	Mono early down
EIF2B1	Not significant
EIF2B3	Not significant
EIF2B4	Not significant
EIF2B5	Not significant
EIF2D	Not significant
EIF2S1	Not significant
EIF2S2	Mono late up
EIF3A	Mono early down
EIF3B	Not significant
EIF3C	Mono early down
EIF3D EIF3E	Global down Global late down
EIF3F	Global late down
EIF3G	Global down
EIF3H	Mono late down
EIF3I	Not significant
	3

EIF3J Not significant
EIF3K Global late down
EIF3M Mono late down
EIF4A1 Mono late down

EIF4A2 NK mid up EIF4A3 Not significant EIF4B Mono late down EIF4E2 Not significant EIF4E3 Not significant EIF4EBP1 Not significant EIF4ENIF1 Not significant Lymph late up EIF4G1

EIF4G2 B down

EIF4G3

EIF4H

Mono late down

EIF5

B/T early up

EIF5A

Not significant

Lymph late up

EIPR1

Not significant

EIF5B
EIPR1
Not significant
ELAC1
Not significant
ELAC2
Not significant
ELAVL1
Not significant
ELF1
B/T early up
ELF2
Not significant
ELF4
Not significant
Not significant
Not significant
Not significant
Not significant

ELK3 Not significant
ELK4 Not significant
ELL Not significant
ELMO1 Not significant
ELMO2 Not significant
ELMOD3 Not significant
ELMSAN1 Mono late down

ELOA Not significant
ELOC Not significant
ELOVL5 Not significant
ELP1 Not significant
ELP2 Not significant

ELP3 Not significant
ELP5 Not significant
EMB Not significant
EMC2 Not significant
EMC3 Not significant
Not significant

EMC6 Not significant EMC7 Not significant

EMC8 EMC9 Not significant EMD Not significant EMG1 Not significant EML3 Not significant EML4 Global down EMP3 Not significant EMSY Not significant ENDOD1 Not significant ENDOG Not significant ENOO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG0000000012 ENSMMUG0000000021 ENSMMUG000000021 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG00000000011 ENSMMUG00000000011 ENSMMUGO00000000000000000000000000000000000
EMD Not significant EMG1 Not significant EML3 Not significant EML4 Global down EMP3 Not significant EMSY Not significant ENDOD1 Not significant ENDOG Not significant ENDOG Not significant ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG0000000011 Global down ENSMMUG0000000011 Global down ENSMMUG00000000311 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000397 Not significant ENSMMUG00000000000000000000000000000000000
EMG1 Not significant EML3 Not significant EML4 Global down EMP3 Not significant EMSY Not significant ENDOD1 Not significant ENDOG Not significant ENGASE Not significant ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG0000000011 Not significant ENSMMUG00000000311 Not significant ENSMMUG0000000311 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000063 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000661 NK mid up
EML3 Not significant EML4 Global down EMP3 Not significant EMSY Not significant ENDOD1 Not significant ENDOG Not significant ENGASE Not significant ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG0000000021 Global down ENSMMUG00000000311 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000331 Not significant ENSMMUG000000000331 Not significant ENSMMUG00000000331 Not significant ENSMMUG000000000331 Not significant ENSMMUG0000000000331 Not significant ENSMMUG000000000331 Not significant ENSMMUG000000000331 Not significant ENSMMUG0000000000331 Not significant
EML4 EMP3 Not significant EMSY Not significant ENDOD1 Not significant ENDOG Not significant ENGASE Not significant ENO1 ENO2 Not significant ENOX2 Not significant ENSA ENSMMUG0000000012 ENSMMUG0000000012 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG0000000011 ENSMMUG00000000011 ENSMMUG00000000011 ENSMMUG00000000000000000000000000000000000
EMSY ENDOD1 Not significant ENDOG Not significant ENGASE Not significant ENO1 ENO2 Not significant ENOX2 ENSA ENSA ENSMMUG0000000012 ENSMMUG00000000201 ENSMMUG00000000201 ENSMMUG00000000311 ENSMMUG0000000311 ENSMMUG0000000311 ENSMMUG0000000311 ENSMMUG0000000331 ENSMMUG0000000331 ENSMMUG0000000337 ENSMMUG0000000397 ENSMMUG00000000397 ENSMMUG00000000428 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG00000000558 ENSMMUG00000000663 ENSMMUG00000000663 ENSMMUG00000000671 NK mid up
EMSY ENDOD1 Not significant ENDOG Not significant ENGASE Not significant ENO1 ENO2 Not significant ENOX2 ENOX2 ENSA ENSA Mono late up ENSMMUG0000000012 ENSMMUG00000000201 ENSMMUG0000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG0000000311 Not significant ENSMMUG0000000331 ENSMMUG0000000331 ENSMMUG0000000397 ENSMMUG0000000397 ENSMMUG00000000428 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG00000000558 ENSMMUG00000000663 ENSMMUG00000000671 NK mid up
ENDOD1 ENDOG Not significant ENGASE Not significant ENO1 Mono late up ENO2 ENOX2 Not significant ENSA ENSA Mono late up ENSMMUG0000000012 ENSMMUG00000000201 ENSMMUG00000000249 ENSMMUG0000000311 ENSMMUG0000000311 ENSMMUG0000000331 ENSMMUG0000000331 ENSMMUG0000000337 ENSMMUG0000000397 ENSMMUG00000000397 ENSMMUG00000000428 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG00000000663 ENSMMUG00000000663 ENSMMUG00000000671 NK mid up
ENDOG ENGASE Not significant ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA ENSA ENSMMUG0000000012 ENSMMUG00000000201 ENSMMUG00000000201 ENSMMUG00000000249 ENSMMUG0000000311 ENSMMUG0000000311 ENSMMUG0000000331 ENSMMUG0000000337 ENSMMUG0000000397 ENSMMUG00000000397 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG00000000558 ENSMMUG00000000663 ENSMMUG00000000663 ENSMMUG00000000671 NK mid up
ENGASE ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG00000000012 ENSMMUG00000000201 ENSMMUG00000000249 ENSMMUG0000000311 ENSMMUG0000000331 ENSMMUG0000000331 ENSMMUG0000000397 ENSMMUG0000000397 ENSMMUG00000000397 ENSMMUG00000000558 ENSMMUG0000000558 ENSMMUG00000000558 ENSMMUG0000000663 ENSMMUG00000000661 ENSMMUG00000000671 NK mid up
ENO1 Mono late up ENO2 Not significant ENOX2 Not significant ENSA Mono late up ENSMMUG00000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG0000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG00000000558 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000661 Not significant ENSMMUG00000000671 NK mid up
ENOX2 Not significant ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG0000000311 Not significant ENSMMUG0000000331 Not significant ENSMMUG0000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000661 Not significant ENSMMUG00000000671 NK mid up
ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG0000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG0000000063 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000671 NK mid up
ENSA Mono late up ENSMMUG0000000012 Not significant ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG0000000311 Not significant ENSMMUG0000000331 Not significant ENSMMUG0000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG0000000063 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000671 NK mid up
ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000671 NK mid up
ENSMMUG00000000201 Global down ENSMMUG00000000249 Not significant ENSMMUG00000000311 Not significant ENSMMUG00000000331 Not significant ENSMMUG00000000397 Not significant ENSMMUG00000000428 Not significant ENSMMUG00000000558 Not significant ENSMMUG00000000663 Not significant ENSMMUG00000000671 NK mid up
ENSMMUG0000000311 ENSMMUG0000000331 ENSMMUG0000000397 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG0000000063 ENSMMUG0000000663 ENSMMUG00000000671 Not significant
ENSMMUG0000000331 ENSMMUG00000000397 ENSMMUG00000000428 ENSMMUG00000000558 ENSMMUG0000000063 ENSMMUG00000000671 NK mid up
ENSMMUG0000000397 ENSMMUG0000000428 ENSMMUG00000000558 ENSMMUG0000000663 ENSMMUG00000000671 NK mid up
ENSMMUG0000000428 ENSMMUG0000000558 ENSMMUG0000000663 ENSMMUG00000000671 NK mid up
ENSMMUG0000000558 Not significant ENSMMUG0000000663 Not significant ENSMMUG0000000671 NK mid up
ENSMMUG0000000663 Not significant ENSMMUG0000000671 NK mid up
ENSMMUG0000000671 NK mid up
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ENSMMUG0000000700 Mono late down
ENSMMUG0000000790 Not significant
ENSMMUG0000000801 Not significant
ENSMMUG0000000881 Not significant
ENSMMUG0000000983 Not significant
ENSMMUG0000001053 Not significant
ENSMMUG0000001200 Not significant
ENSMMUG0000001210 Not significant
ENSMMUG0000001239 Not significant
ENSMMUG0000001270 Not significant
ENSMMUG0000001354 Lymph late up
ENSMMUG0000001376 Not significant
ENSMMUG0000001401 Not significant
ENSMMUG0000001408 Mono early down
ENSMMUG0000001411 Not significant
ENSMMUG0000001549 Not significant
ENSMMUG0000001647 Not significant
ENSMMUG0000001884 B/T early up
ENSMMUG0000001925 Not significant
ENSMMUG0000001925 Not significant ENSMMUG0000001983 Not significant

ENSMMUG00000002003	Not significant
ENSMMUG00000002005	Global down
ENSMMUG0000002029	Not significant
ENSMMUG00000002023	_
	Not significant
ENSMMUG00000002111	Not significant
ENSMMUG00000002153	Not significant
ENSMMUG00000002162	Not significant
ENSMMUG00000002180	Not significant
ENSMMUG00000002194	Mono late up
ENSMMUG00000002237	Not significant
ENSMMUG00000002246	Not significant
ENSMMUG00000002273	Not significant
ENSMMUG00000002273	Not significant
ENSMMUG00000002354	Not significant
ENSMMUG00000002374	Not significant
ENSMMUG00000002380	Not significant
ENSMMUG00000002538	Not significant
ENSMMUG00000002563	Not significant
ENSMMUG00000002668	Not significant
ENSMMUG00000002704	Global down
ENSMMUG00000002728	Not significant
ENSMMUG0000002859	Not significant
ENSMMUG0000002880	Not significant
ENSMMUG00000002920	Not significant
ENSMMUG00000002926	Not significant
	_
ENSMMUG00000002989	Global late down
ENSMMUG00000003030	Not significant
ENSMMUG00000003073	Global late down
ENSMMUG00000003076	Not significant
ENSMMUG00000003187	Mono late up
ENSMMUG00000003234	Not significant
ENSMMUG00000003272	Global up
ENSMMUG00000003308	Not significant
ENSMMUG00000003339	Not significant
ENSMMUG00000003403	Not significant
ENSMMUG00000003542	Not significant
	_
ENSMMUG00000003552	Not significant
ENSMMUG00000003629	Global up
ENSMMUG00000003646	Not significant
ENSMMUG00000003664	Mono early down
ENSMMUG00000003701	Not significant
ENSMMUG00000003835	Not significant
ENSMMUG00000003857	Not significant
ENSMMUG0000004059	Global late down
ENSMMUG00000004089	Not significant
	J 24

ENSMMUG00000004127	Not significant
ENSMMUG00000004186	Global down
ENSMMUG00000004387	Not significant
ENSMMUG00000004400	Not significant
ENSMMUG00000004439	Not significant
ENSMMUG00000004511	Not significant
ENSMMUG00000004545	Not significant
ENSMMUG00000004571	Not significant
ENSMMUG00000004754	Not significant
ENSMMUG00000004863	Not significant
ENSMMUG00000004935	Mono late up
ENSMMUG00000004941	Not significant
ENSMMUG00000005007	Not significant
ENSMMUG00000005139	Not significant
ENSMMUG00000005236	Not significant
ENSMMUG00000005253	Not significant
ENSMMUG00000005293	Not significant
ENSMMUG00000005314	Not significant
ENSMMUG0000005348	Not significant
ENSMMUG00000005553	Not significant
ENSMMUG00000005593	Not significant
ENSMMUG00000005595	Not significant
ENSMMUG00000005659	Not significant
ENSMMUG0000005754	Not significant
ENSMMUG00000005880	Not significant
ENSMMUG0000005919	Not significant
ENSMMUG0000005958	Global late down
ENSMMUG0000006148	Not significant
ENSMMUG00000006283	Not significant
ENSMMUG00000006293	Not significant
ENSMMUG00000006343	Not significant
ENSMMUG00000006383	Global down
ENSMMUG00000006443	Not significant
ENSMMUG0000006463	Global down
ENSMMUG0000006499	Mono early down
ENSMMUG0000006514	Not significant
ENSMMUG00000006608	Not significant
ENSMMUG00000006718	Not significant
ENSMMUG0000006747	Not significant
ENSMMUG0000006854	Not significant
ENSMMUG0000006855	Not significant
ENSMMUG0000006919	Not significant
ENSMMUG0000006971	Not significant
ENSMMUG0000006979	Not significant
ENSMMUG0000006987	Not significant

ENSMMUG00000007421	Not significant
ENSMMUG00000007426	Not significant
ENSMMUG00000007475	Not significant
ENSMMUG00000007536	Global down
ENSMMUG00000007732	Not significant
ENSMMUG00000007833	Not significant
ENSMMUG00000007939	Not significant
ENSMMUG00000007970	Not significant
ENSMMUG00000008097	Not significant
ENSMMUG00000008124	Not significant
ENSMMUG00000008173	Not significant
ENSMMUG00000008222	Lymph late up
ENSMMUG00000008285	Not significant
ENSMMUG00000008295	Not significant
ENSMMUG00000008378	Not significant
ENSMMUG00000008396	Not significant
ENSMMUG00000008417	Not significant
ENSMMUG00000008435	B/T early up
ENSMMUG00000008459	Not significant
ENSMMUG00000008525	Not significant
ENSMMUG00000008604	Mono early up
ENSMMUG00000008632	Not significant
ENSMMUG00000008642	Not significant
ENSMMUG00000008667	Not significant
ENSMMUG00000008695	Not significant
ENSMMUG00000008755	Not significant
ENSMMUG00000009155	Not significant
ENSMMUG00000009272	Not significant
ENSMMUG00000009302	Not significant
ENSMMUG00000009406	Not significant
ENSMMUG00000009425	Not significant
ENSMMUG00000009671	Not significant
ENSMMUG00000009948	Global down
ENSMMUG00000010011	Not significant
ENSMMUG00000010062	Not significant
ENSMMUG00000010070	Not significant
ENSMMUG00000010180	Not significant
ENSMMUG00000010226	Mono late up
ENSMMUG00000010236	Not significant
ENSMMUG00000010253	Not significant
ENSMMUG00000010387	Not significant
ENSMMUG00000010392	Global late down
ENSMMUG00000010418	Not significant
ENSMMUG0000010459	Not significant
ENSMMUG00000010556	Not significant

ENSMMUG00000010603	Not significant
ENSMMUG00000010691	B/T early up
ENSMMUG00000010828	Not significant
ENSMMUG00000010892	Not significant
ENSMMUG00000011229	Not significant
ENSMMUG00000011244	Not significant
ENSMMUG00000011287	Global down
ENSMMUG00000011293	Not significant
ENSMMUG00000011336	Global down
ENSMMUG00000011422	Not significant
ENSMMUG00000011468	Not significant
ENSMMUG00000011604	Not significant
ENSMMUG00000011711	Not significant
ENSMMUG00000011714	Not significant
ENSMMUG00000011787	Not significant
ENSMMUG00000011806	Not significant
ENSMMUG00000011871	Not significant
ENSMMUG00000011880	Not significant
ENSMMUG00000011896	Not significant
ENSMMUG00000012047	NK mid up
ENSMMUG00000012081	Not significant
ENSMMUG00000012140	B/T early up
ENSMMUG00000012179	Not significant
ENSMMUG00000012203	Not significant
ENSMMUG00000012291	Not significant
ENSMMUG00000012367	Not significant
ENSMMUG00000012397	Not significant
ENSMMUG00000012474	Not significant
ENSMMUG00000012525	Not significant
ENSMMUG00000012537	Not significant
ENSMMUG00000012709	Not significant
ENSMMUG00000012843	Not significant
ENSMMUG00000012956	Not significant
ENSMMUG00000013059	Not significant
ENSMMUG00000013060	Not significant
ENSMMUG00000013126	Not significant
ENSMMUG00000013136	Mono late down
ENSMMUG00000013256	Global up
ENSMMUG00000013257	Global up
ENSMMUG00000013258	Not significant
ENSMMUG00000013343	Not significant
ENSMMUG00000013388	B/T early up
ENSMMUG00000013949	Not significant
ENSMMUG00000014083	Not significant
ENSMMUG00000014256	Global late down

ENSMMUG00000014352	Not significant
ENSMMUG00000014418	Not significant
ENSMMUG00000014460	Not significant
ENSMMUG00000014489	Not significant
ENSMMUG00000014648	Not significant
ENSMMUG00000014855	Not significant
ENSMMUG00000014862	Global down
ENSMMUG00000014892	Not significant
ENSMMUG00000014911	Not significant
ENSMMUG00000015025	Not significant
ENSMMUG00000015130	Not significant
ENSMMUG00000015270	Global late down
ENSMMUG00000015316	Not significant
ENSMMUG00000015442	Not significant
ENSMMUG00000015583	Mono late down
ENSMMUG00000015667	Not significant
ENSMMUG00000015749	Mono late up
ENSMMUG00000015781	B/T early up
ENSMMUG00000015832	Not significant
ENSMMUG00000015841	Not significant
ENSMMUG00000015861	Not significant
ENSMMUG00000015963	Not significant
ENSMMUG00000016009	Not significant
ENSMMUG00000016044	Not significant
ENSMMUG00000016082	Not significant
ENSMMUG00000016086	Not significant
ENSMMUG00000016129	Not significant
ENSMMUG00000016306	Not significant
ENSMMUG00000016383	Not significant
ENSMMUG00000016403	Not significant
ENSMMUG00000016453	Not significant
ENSMMUG00000016517	Not significant
ENSMMUG00000016621	Not significant
ENSMMUG00000016632	Not significant
ENSMMUG00000016898	Not significant
ENSMMUG00000017044	Not significant
ENSMMUG00000017077	Not significant
ENSMMUG00000017231	Not significant
ENSMMUG00000017270	Not significant
ENSMMUG00000017278	Not significant
ENSMMUG00000017400	Not significant
ENSMMUG00000017420	Not significant
ENSMMUG00000017463	Not significant
ENSMMUG00000017466	Mono late down
ENSMMUG00000017625	Not significant

ENSMMUG00000017782	Not significant
ENSMMUG00000017838	Not significant
ENSMMUG00000017841	Not significant
ENSMMUG00000017890	Not significant
ENSMMUG00000017921	Mono late up
ENSMMUG0000017989	Not significant
ENSMMUG00000017303	Not significant
ENSMMUG00000018208	Not significant
ENSMMUG00000018224	Not significant
ENSMMUG00000018252	~
	Not significant
ENSMMUG00000018463	Not significant
ENSMMUG00000018535	Not significant
ENSMMUG00000018579	Not significant
ENSMMUG00000018757	Not significant
ENSMMUG00000018813	Not significant
ENSMMUG00000018854	B down
ENSMMUG00000018935	Not significant
ENSMMUG00000019075	Not significant
ENSMMUG00000019141	NK mid up
ENSMMUG00000019143	Not significant
ENSMMUG00000019238	Not significant
ENSMMUG00000019251	Mono late up
ENSMMUG00000019282	Not significant
ENSMMUG00000019283	Not significant
ENSMMUG00000019288	Not significant
ENSMMUG00000019323	Not significant
ENSMMUG00000019335	Not significant
ENSMMUG00000019376	Not significant
ENSMMUG00000019405	Not significant
ENSMMUG00000019427	Not significant
ENSMMUG00000019505	Not significant
ENSMMUG00000019582	Mono early down
ENSMMUG00000019656	Not significant
ENSMMUG0000019785	Mono late down
ENSMMUG00000019875	Not significant
ENSMMUG00000019912	Not significant
ENSMMUG00000019912	Not significant
ENSMMUG00000019933	Not significant
ENSMMUG00000019944 ENSMMUG00000020055	_
	Not significant
ENSMMUG00000020125	Not significant
ENSMMUG00000020148	Not significant
ENSMMUG00000020157	Global up
ENSMMUG00000020178	Not significant
ENSMMUG00000020200	Mono late down
ENSMMUG00000020269	Not significant

ENSMMUG00000020275	Not significant
ENSMMUG00000020321	Not significant
ENSMMUG00000020433	Not significant
ENSMMUG00000020449	Not significant
ENSMMUG00000020603	Not significant
ENSMMUG00000020716	Global down
ENSMMUG00000020721	Not significant
ENSMMUG00000020813	Not significant
ENSMMUG00000020920	Not significant
ENSMMUG00000020941	Not significant
ENSMMUG00000020989	Not significant
ENSMMUG00000020999	Not significant
ENSMMUG00000021075	Not significant
ENSMMUG00000021085	Not significant
ENSMMUG00000021379	Global down
ENSMMUG00000021425	Not significant
ENSMMUG00000021448	Not significant
ENSMMUG00000021440	•
	Not significant
ENSMMUG00000021539	Not significant
ENSMMUG00000021561	Not significant
ENSMMUG00000021593	Not significant
ENSMMUG00000021766	Global up
ENSMMUG00000021780	Not significant
ENSMMUG00000021826	Not significant
ENSMMUG00000021916	Not significant
ENSMMUG00000021939	Not significant
ENSMMUG00000021944	Not significant
ENSMMUG00000021969	Not significant
ENSMMUG00000021980	Global late down
ENSMMUG00000022075	B down
ENSMMUG00000022073	
	Not significant
ENSMMUG00000022094	Not significant
ENSMMUG00000022130	Global down
ENSMMUG00000022153	Not significant
ENSMMUG00000022179	Not significant
ENSMMUG00000022316	Not significant
ENSMMUG00000022610	Global late down
ENSMMUG00000022769	Not significant
ENSMMUG00000022772	Global late down
ENSMMUG00000022874	Not significant
ENSMMUG00000022958	Not significant
ENSMMUG00000022990	Not significant
ENSMMUG00000022990	Mono early down
ENSMMUG00000023144	Not significant
ENSMMUG00000023179	Not significant

ENSMMUG00000023202	Not significant
ENSMMUG00000023352	Not significant
ENSMMUG00000023454	Mono late up
ENSMMUG00000023474	Not significant
ENSMMUG00000023575	Mono late down
ENSMMUG00000023620	Not significant
ENSMMUG00000023683	Not significant
ENSMMUG00000023805	Not significant
ENSMMUG00000023807	Global late down
ENSMMUG00000028709	Not significant
ENSMMUG00000028890	Not significant
ENSMMUG00000028906	Not significant
ENSMMUG00000028931	Not significant
ENSMMUG0000028937	Not significant
ENSMMUG0000029026	Global down
ENSMMUG0000029338	Not significant
ENSMMUG0000029343	Not significant
ENSMMUG00000029348	Not significant
ENSMMUG00000029361	Not significant
ENSMMUG00000029374	Not significant
ENSMMUG00000029377	B down
ENSMMUG00000029417	Not significant
ENSMMUG00000029426	Not significant
ENSMMUG00000029420	Not significant
ENSMMUG00000029540	Not significant
ENSMMUG00000029627	Not significant
ENSMMUG00000029032	Not significant
ENSMMUG00000029672	Mono early up
ENSMMUG00000029695	Not significant
ENSMMUG00000029756	Not significant
ENSMMUG00000029750	Not significant
ENSMMUG00000029873	Not significant
ENSMMUG00000029932	Global down
ENSMMUG00000030117	
	Not significant
ENSMMUG0000030183	Not significant
ENSMMUG00000030210	Not significant
ENSMMUG0000030356	Not significant
ENSMMUG0000030408	Not significant
ENSMMUG00000030445	Global down
ENSMMUG0000030448	Global down
ENSMMUG0000030508	Not significant
ENSMMUG0000030563	Not significant
ENSMMUG0000030588	Not significant
ENSMMUG0000030606	Not significant
ENSMMUG00000030679	Not significant

ENSMMUG00000030680	Not significant
ENSMMUG00000030761	Not significant
ENSMMUG00000030811	Not significant
ENSMMUG00000030827	Not significant
ENSMMUG00000030892	Not significant
ENSMMUG00000030920	Not significant
ENSMMUG00000030947	Not significant
ENSMMUG00000031000	Not significant
ENSMMUG00000031002	Not significant
ENSMMUG00000031017	Not significant
ENSMMUG00000031056	Not significant
ENSMMUG0000031189	Global down
ENSMMUG00000031250	Not significant
ENSMMUG0000031260	Not significant
ENSMMUG0000031300	Not significant
ENSMMUG0000031336	Global up
ENSMMUG00000031385	Not significant
ENSMMUG0000031424	Not significant
ENSMMUG00000031524	Global down
ENSMMUG00000031592	Not significant
ENSMMUG00000031770	Not significant
ENSMMUG00000031840	Not significant
ENSMMUG00000031898	Not significant
ENSMMUG00000031944	Not significant
ENSMMUG00000031947	Global down
ENSMMUG00000032072	B/T early up
ENSMMUG00000032091	Not significant
ENSMMUG00000032216	Not significant
ENSMMUG00000032342	Not significant
ENSMMUG00000032350	Not significant
ENSMMUG00000032421	Global down
ENSMMUG00000032441	Not significant
ENSMMUG00000032470	Not significant
ENSMMUG00000032487	Not significant
ENSMMUG00000032537	Not significant
ENSMMUG00000032553	Not significant
ENSMMUG00000032583	Not significant
ENSMMUG00000037540	Not significant
ENSMMUG00000037667	Not significant
ENSMMUG00000037710	Not significant
ENSMMUG00000037731	Not significant
ENSMMUG00000037893	Not significant
ENSMMUG00000037975	Not significant
ENSMMUG00000037977	Not significant
ENSMMUG00000038060	Not significant

ENSMMUG00000038133	Not significant
ENSMMUG00000038181	Not significant
ENSMMUG00000038230	Not significant
ENSMMUG00000038373	Mono late down
ENSMMUG00000038476	Not significant
ENSMMUG00000038487	Not significant
ENSMMUG00000038493	Not significant
ENSMMUG00000038528	Global late down
ENSMMUG00000038530	Not significant
ENSMMUG00000038543	Not significant
ENSMMUG00000038560	Not significant
ENSMMUG00000038562	Not significant
ENSMMUG00000038581	Not significant
ENSMMUG00000038586	Global late down
ENSMMUG00000038662	Not significant
ENSMMUG00000038908	Not significant
ENSMMUG00000038991	Not significant
ENSMMUG00000039018	Not significant
ENSMMUG00000039027	Not significant
ENSMMUG00000039100	Not significant
ENSMMUG00000039173	Not significant
ENSMMUG00000039254	Not significant
ENSMMUG00000039255	Not significant
ENSMMUG00000039321	Not significant
ENSMMUG00000039405	Not significant
ENSMMUG00000039519	Global up
ENSMMUG00000039566	Not significant
ENSMMUG00000039599	Not significant
ENSMMUG00000039741	Not significant
ENSMMUG00000039765	Not significant
ENSMMUG00000039771	Not significant
ENSMMUG00000039851	Not significant
ENSMMUG00000039855	Not significant
ENSMMUG00000039874	Not significant
ENSMMUG00000039895	Not significant
ENSMMUG00000039942	Not significant
ENSMMUG00000039978	Not significant
ENSMMUG00000040073	Not significant
ENSMMUG00000040076	Not significant
ENSMMUG00000040144	Not significant
ENSMMUG00000040221	Not significant
ENSMMUG00000040237	Not significant
ENSMMUG00000040273	Not significant
ENSMMUG00000040334	Not significant
ENSMMUG00000040341	Not significant

ENSMMUG00000040361	Not significant
ENSMMUG00000040370	Not significant
ENSMMUG00000040409	Not significant
ENSMMUG00000040411	Not significant
ENSMMUG00000040417	B down
ENSMMUG00000040488	Not significant
ENSMMUG00000040500	Not significant
ENSMMUG00000040554	Not significant
ENSMMUG00000040571	Not significant
ENSMMUG00000040586	Not significant
ENSMMUG00000040778	Not significant
ENSMMUG00000040780	Global up
ENSMMUG00000040957	Not significant
ENSMMUG00000040966	Not significant
ENSMMUG00000040977	Not significant
ENSMMUG00000040997	Not significant
ENSMMUG00000041132	Not significant
ENSMMUG00000041144	Global up
ENSMMUG00000041147	Not significant
ENSMMUG00000041169	Not significant
ENSMMUG00000041217	Not significant
ENSMMUG00000041268	Not significant
ENSMMUG00000041303	Not significant
ENSMMUG00000041305	Global up
ENSMMUG00000041316	Not significant
ENSMMUG00000041391	Global late down
ENSMMUG00000041453	Not significant
ENSMMUG00000041491	Not significant
ENSMMUG00000041524	Not significant
ENSMMUG00000041539	Not significant
ENSMMUG00000041575	Not significant
ENSMMUG00000041595	Not significant
ENSMMUG00000041662	Mono late up
ENSMMUG00000041670	Not significant
ENSMMUG00000041672	Not significant
ENSMMUG00000041701	Not significant
ENSMMUG00000041712	Not significant
ENSMMUG00000041714	Not significant
ENSMMUG00000041735	Not significant
ENSMMUG00000041755	Not significant
ENSMMUG00000041773	Not significant
ENSMMUG00000041805	Not significant
ENSMMUG00000041825	Not significant
ENSMMUG00000041909	Not significant
ENSMMUG00000041947	Not significant

ENSMMUG00000041960	Not significant
ENSMMUG00000042067	Global up
ENSMMUG00000042113	Global down
ENSMMUG00000042124	Not significant
ENSMMUG00000042153	Not significant
ENSMMUG00000042157	Not significant
ENSMMUG00000042331	Not significant
ENSMMUG00000042390	Not significant
ENSMMUG00000042412	Not significant
ENSMMUG00000042418	Not significant
ENSMMUG00000042545	Not significant
ENSMMUG0000042611	Not significant
ENSMMUG0000042613	Not significant
ENSMMUG0000042620	Not significant
ENSMMUG0000042631	Not significant
ENSMMUG0000042673	Not significant
ENSMMUG0000042828	Not significant
ENSMMUG0000042837	Not significant
ENSMMUG0000043101	Not significant
ENSMMUG0000043108	Not significant
ENSMMUG0000043389	Not significant
ENSMMUG00000043426	Not significant
ENSMMUG00000043473	Not significant
ENSMMUG00000043509	Not significant
ENSMMUG00000043556	Not significant
ENSMMUG00000043588	Not significant
ENSMMUG00000043614	Not significant
ENSMMUG00000043617	Not significant
ENSMMUG00000043656	Not significant
ENSMMUG00000043836	Not significant
ENSMMUG00000043897	Not significant
ENSMMUG00000043934	Not significant
ENSMMUG00000044031	Not significant
ENSMMUG00000044088	Global down
ENSMMUG00000044103	B/T early up
ENSMMUG00000044258	Not significant
ENSMMUG00000044288	Not significant
ENSMMUG00000044294	Global down
ENSMMUG00000044354	Not significant
ENSMMUG00000044360	Not significant
ENSMMUG00000044392	Not significant
ENSMMUG00000044488	Global down
ENSMMUG00000044566	Not significant
ENSMMUG00000044583	Not significant
ENSMMUG00000044632	Not significant
	-

ENSMMUG00000044639	Not significant
ENSMMUG00000044709	Not significant
ENSMMUG00000044712	Not significant
ENSMMUG00000044788	Not significant
ENSMMUG00000044793	Not significant
ENSMMUG0000044871	Not significant
ENSMMUG0000044910	Not significant
ENSMMUG00000044910	Not significant
ENSMMUG00000044939	
	Not significant
ENSMMUG00000045197	Not significant
ENSMMUG00000045233	Not significant
ENSMMUG00000045257	Not significant
ENSMMUG00000045320	Not significant
ENSMMUG00000045339	Global down
ENSMMUG00000045382	Not significant
ENSMMUG00000045385	Not significant
ENSMMUG00000045431	Not significant
ENSMMUG00000045511	Not significant
ENSMMUG00000045582	Not significant
ENSMMUG00000045620	Not significant
ENSMMUG00000045640	Not significant
ENSMMUG00000045659	Not significant
ENSMMUG00000045853	Not significant
ENSMMUG00000045895	Not significant
ENSMMUG00000045902	Not significant
ENSMMUG00000046023	Not significant
ENSMMUG00000046028	Not significant
ENSMMUG00000046130	Not significant
ENSMMUG00000046132	Not significant
ENSMMUG00000046225	Not significant
ENSMMUG0000046228	Not significant
ENSMMUG0000046261	Not significant
ENSMMUG0000046273	Not significant
ENSMMUG0000046437	Not significant
ENSMMUG0000046487	B/T early up
ENSMMUG00000046512	Not significant
ENSMMUG00000046512	Not significant
ENSMMUG00000046548	_
	Not significant
ENSMMUG00000046717	Mono late up
ENSMMUG0000046857	Not significant
ENSMMUG00000046996	Global down
ENSMMUG00000047035	Not significant
ENSMMUG00000047218	Not significant
ENSMMUG00000047234	Global down
ENSMMUG00000047344	Not significant

ENSMMUGO0000047461 ENSMMUGO0000047461 ENSMMUGO0000047481 ENSMMUGO0000047590 ENSMMUGO0000047632 ENSMMUGO0000047655 ENSMMUGO0000047800 ENSMMUGO0000047819 ENSMMUGO0000047831 ENSMMUGO0000047833 ENSMMUGO0000047918 ENSMMUGO0000047918 ENSMMUGO0000047946 ENSMMUGO0000048033 ENSMMUGO0000048059 ENSMMUGO0000048425 ENSMMUGO0000048425 ENSMMUGO0000048763 ENSMMUGO0000048763 ENSMMUGO0000048920 ENSMMUGO0000048920 ENSMMUGO0000048920 ENSMMUGO0000048920 ENSMMUGO0000048920 ENSMMUGO0000049104 ENSMMUGOO000049104	Global down Global up Not significant Not significant Global down Mono late up Not significant Global late down Not significant Global late down Not significant
EPHB6	Not significant
EPN1	Not significant
EPRS	Not significant
EPS15	Not significant
EPS15L1 EPS8L2	Not significant
CFJOLZ	Not significant

EPSTI1	Global up
ERAL1	Not significant
ERAP1	Not significant
ERAP2	B/T early up
ERBIN	Not significant
ERC1	Mono early down
ERCC1	Not significant
ERCC4	
ERCC4	Not significant
	Not significant
ERGIC2	Not significant
ERGIC3	Not significant
ERH	Not significant
ERI1	Not significant
ERI3	Not significant
ERICH1	Not significant
ERLEC1	Not significant
ERLIN1	Not significant
ERMARD	Not significant
ERN1	Not significant
ERO1A	Mono early up
ERO1B	Not significant
ERP27	Not significant
ERP44	Not significant
ESCO1	Mono early down
ESD	Not significant
ESS2	Not significant
ESYT1	Global down
ESYT2	Global down
ETF1	Not significant
ETFA	Not significant
ETFB	Mono late up
ETHE1	Not significant
ETS1	Global down
ETS2	B/T early up
ETV3	Not significant
ETV6	Not significant
EVA1B	Not significant
EVI2B	B/T early up
EVL	Global late down
EWSR1	Not significant
EXD2	Not significant
EXOC1	Not significant
EXOC2	Not significant
EXOC3	Not significant
EXOC5	Not significant
	ivot significant

EXOC6	Not significant
EXOC7	Not significant
EXOC8	Not significant
EXOSC1	Not significant
EXOSC10	Not significant
EXOSC3	Not significant
EXOSC4	Not significant
EXOSC7	Mono late up
	•
EXOSC8	Not significant
EXOSC9	Not significant
EXPH5	Not significant
EXT2	Not significant
EXTL2	Not significant
EXTL3	Not significant
EZH1	Not significant
EZH2	Not significant
EZR	Not significant
F5	Not significant
FAAH	Not significant
FAAH2	Not significant
FAAP100	Not significant
FAAP24	Not significant
FAF1	Not significant
FAF2	Not significant
FAH	Not significant
FAIM	Not significant
FAM102A	Not significant
FAM103A1	Not significant
FAM104A	Not significant
FAM104A	
	Not significant
FAM107B	Not significant
FAM107B	Global late down
FAM110A	Mono late down
FAM111A	Mono late up
FAM114A2	Not significant
FAM118A	Not significant
FAM120A	Mono late down
FAM120B	Not significant
FAM122B	Not significant
FAM126A	Not significant
FAM126B	Not significant
FAM129A	Mono late up
FAM133B	Not significant
FAM136A	Not significant
FAM13B	Mono early down
	,

FAM149B1	Not significant
FAM160A2	Not significant
FAM160B1	Not significant
FAM160B2	Not significant
FAM162A	Not significant
FAM169A	Not significant
FAM172A	Not significant
FAM184A	Not significant
FAM189B	Not significant
FAM192A	Not significant
FAM193A	Not significant
FAM193B	Not significant
FAM19A5	Not significant
FAM200B	Not significant
FAM204A	Not significant
FAM206A	Not significant
FAM207A	Not significant
FAM208A	Not significant
FAM208B	Not significant
FAM210A	Not significant
FAM210B	Not significant
FAM212A	Not significant
FAM213A	Not significant
FAM214A	Not significant
FAM217B	Not significant
FAM219A	Not significant
FAM220A	Not significant
FAM222B	Not significant
FAM234A	Not significant
FAM241A	Not significant
FAM32A	Not significant
FAM35A	Not significant
FAM3A	Not significant
FAM3C	B/T early up
FAM46A	B/T early up
FAM46C	B/T early up
FAM49B	NK mid up
FAM50A	Mono early down
FAM53A	Not significant
FAM53B	Global late down
FAM53C	Not significant
FAM69A	Not significant
FAM76A	Not significant
FAM76B	Not significant
FAM78A	Not significant

FAM84B	Not significant
FAM89A	Mono late up
FAM89B	Not significant
FAM91A1	Not significant
FAM96A	Not significant
FAM96B	Not significant
FAM98A	Not significant
FAM98B	Not significant
FAM98C	Not significant
FAN1	Not significant
FANCC	Not significant
FANCD2	Not significant
FANCE	Not significant
FANCG	Not significant
FANCI	Not significant
FANCM	Not significant
FAR1	Not significant
FARS2	Not significant
FARSA	-
	Not significant
FARSB	Not significant
FAS	Global up
FASN	Not significant
FASTK	Not significant
FASTKD1	Not significant
FASTKD2	Not significant
FASTKD5	Not significant
FAU	Global late down
FAXDC2	Not significant
	•
FBL	Global down
FBLN5	Not significant
FBRS	Not significant
FBXL12	Not significant
FBXL17	Not significant
FBXL20	Not significant
FBXL3	Not significant
FBXL4	_
	Not significant
FBXL5	Not significant
FBXL6	Not significant
FBXO11	Not significant
FBXO18	Not significant
FBXO21	Not significant
FBXO22	Not significant
FBXO25	Not significant
FBXO28	Not significant
FBXO3	Not significant
15/05	Troc Significant

FBXO31	Not significant
FBXO32	Not significant
FBXO33	Not significant
FBXO34	Not significant
FBXO38	Not significant
FBXO4	Not significant
FBXO42	Not significant
FBXO44	Not significant
FBXO45	Not significant
FBXO5	Not significant
FBXO7	Mono late up
FBXO8	Not significant
FBXO9	Mono late up
FBXW11	Not significant
FBXW2	Not significant
FBXW5	Not significant
FBXW7	Mono early down
FBXW8	Not significant
FCGRT	Not significant
FCHO1	Not significant
FCHO2	Mono late down
FCHSD2	Not significant
FCMR	Not significant
FDFT1	Not significant
FDXR	Not significant
FEM1B	Not significant
FEM1C	Not significant
FER	Not significant
FER1L5	Not significant
FERMT3	Mono late up
FEZ2	Not significant
FGD3	Global late down
FGFR1OP	Not significant
FGFR1OP2	Not significant
FGL2	Mono late down
FH	Not significant
FHL3	Not significant
FHOD1	Not significant
FIBP	Not significant
FIG4	Not significant
FIGNL1	Not significant
FIS1	Global down
FKBP15	Mono early down
FKBP2	Not significant
FKBP3	Not significant

Not significant FKBP4 FKBP5 Global up FKBP8 Not significant Not significant **FKBPL FKRP** Not significant Not significant **FKTN** FLAD1 Not significant **FLCN** Not significant FLI1 Global late down FLII Mono late down **FLNA** Global down **FLNB** Not significant FLOT1 Mono late up FLOT2 Not significant FLT3LG Not significant Not significant FLYWCH1

FNBP1 B down

FLYWCH2

FMNL1 FMR1

FN3KRP

FNBP1L Not significant
FNDC3A Not significant
FNDC3B Not significant
FNIP1 Mono early down

Not significant

Not significant

Not significant

Mono late down

FNTB B/T early up B/T early up **FOS FOSB** B/T early up FOSL2 Not significant FOX₁2 Not significant FOXI3 Not significant FOXK2 Not significant FOXN2 Not significant FOXN3 Not significant Mono late down FOXO1 FOXO3 Mono late down FOXO4 Not significant FOXP1 Mono late down FOXP3 Not significant Not significant FOXRED1 **FPGS** Not significant

FRA10AC1 Not significant
FRAT2 Not significant
FRG1 Not significant
FRMD4B Not significant

Not significant FRMD6 FRMD8 Not significant FRS2 Not significant Mono early down **FRYL** FSD1 Not significant B/T early up FTH1 FTL Mono late up **FTO** Not significant FTS₁1 Not significant Not significant FTS₁₃ FUBP1 Global up Not significant

FUCA1 FUCA2 Not significant FUNDC2 Not significant **FURIN** Not significant **FUS** Lymph late up Not significant FUT11 Not significant FUT8 **FUZ** Not significant Not significant **FXN** Mono early down FXR1 FXR2 Not significant Not significant FXYD5 FYB1 Mono late up FYCO1 Not significant **FYN** Global late down

Not significant FYTTD1 FZR1 Not significant G2E3 Not significant G3BP1 Not significant G6PD Not significant **GAA** Not significant GAB3 Not significant **GABARAP** Not significant GABARAPL1 Not significant Not significant GABBR1

GABPA

GABPB1

GABPB2

GADD45A

GADD45B

GADD45G

GADD45G

Not significant

GADD45G Not significant
GADD45GIP1 Not significant
GAK Not significant
GAL3ST4 Not significant

GALC Not significant **GALE** Not significant GALK1 Not significant Not significant **GALNS** GALNT1 Not significant GALNT10 Not significant GALNT11 Not significant GALNT12 Not significant **GALNT2** Not significant **GALNT6** Not significant **GALNT7** Not significant **GANAB** Not significant **GAPDH** Mono late up **GAPDHS** Not significant GAPVD1 Not significant GAR1 Not significant Not significant **GARS GART** Not significant GAS8 Not significant GATA3 Not significant Not significant GATAD1 GATAD2A Not significant **GATAD2B** Not significant **GATC** Not significant **GBA** Not significant GBF1 Not significant GBP2 Global up GCC1 Not significant Mono early down Not significant

GCC2 GCFC2 **GCLC** Not significant **GCLM** Not significant GCN1 Not significant GCNT1 Not significant GCNT4 Not significant GCOM1 Not significant GDE1 Not significant GDF9 Not significant GDI1 Not significant

GDI2 B down

GEMIN4 Not significant
GEMIN5 Not significant
GEMIN8 Not significant
GET4 Not significant
GFER Not significant

GFM1	Not significant
GFM2	Not significant
GGA1	Not significant
GGA2	Not significant
GGA3	Not significant
GGACT	Not significant
GGCX	Not significant
GGNBP2	_
	Not significant
GGPS1	Not significant
GHDC	Not significant
GHITM	Not significant
GID4	Not significant
GIGYF1	Not significant
GIGYF2	Mono early down
GIMAP2	Not significant
GIMAP4	Mono late up
GIMAP6	Global up
GIMAP7	Lymph late up
GIMAP8	Mono late up
GINM1	Not significant
GIPC2	Not significant
GIT1	Not significant
GIT2	Not significant
GKAP1	Not significant
GLA	Mono late down
GLB1	Not significant
GLCC11	Global late down
GLCE	Not significant
GLE1	Not significant
GLG1	_
	Not significant
GLIPR1	NK mid up
GLIPR2	Global down
GLMN	Not significant
GLMP	Not significant
GLO1	Not significant
GLOD4	Not significant
GLRX	Mono late up
GLRX2	Not significant
GLRX3	Not significant
GLS	Not significant
GLT8D1	Not significant
GLTP	Mono late down
GLYR1	Not significant
GM2A	Mono early up
GMDS	Not significant
	giiiiiodiic

GMEB1 Not significant GMEB2 Not significant Not significant **GMFB** Not significant **GMFG GMIP** Not significant **GMNN** Not significant **GMPPA** Not significant GMPR2 Not significant **GMPS** Not significant GNA12 Not significant GNA13 Global late down **GNAI2** Not significant **GNAI3** Not significant **GNAS** Global late down GNB1 Not significant GNB₂ Not significant Not significant **GNE** Mono late up GNG11 GNG5 Not significant GNL1 Not significant GNL₂ Not significant GNL3 Not significant GNL3L Not significant NK mid up **GNLY GNPAT** Not significant **GNPTAB** Not significant **GNPTG** Not significant **GNRH1** Not significant **GNS** Mono early up GOLGA1 Not significant Not significant GOLGA2

GOLGA3 B down

GPAM

GOLGA5 Not significant GOLGA7 Not significant Global down GOLGB1 Global late down GOLIM4 GOLPH3 Not significant GOLPH3L Not significant GOLT1B Not significant Not significant GON4L GORASP2 Not significant GOSR1 Not significant Not significant GPAA1 Not significant **GPALPP1**

Not significant

GPAT4 Not significant **GPATCH1** Not significant GPATCH11 Not significant Not significant **GPATCH2 GPATCH4** Not significant **GPATCH8** Not significant GPBAR1 Not significant GPBP1 Lymph late up GPBP1L1 Not significant Mono late down GPCPD1 GPD1L Not significant GPD2 Not significant **GPHN** Not significant **GPKOW** Not significant GPN1 Not significant GPN2 Not significant Not significant GPN3 Not significant **GPR107 GPR132** Not significant **GPR137** Not significant GPR137B Not significant **GPR146** Not significant **GPR155** Not significant **GPR160** Not significant **GPR171** Not significant **GPR174** Not significant Not significant GPR18 **GPR183** B/T early up Not significant GPR63 GPR65 Global up Not significant GPR68 GPR89A Not significant GPRASP1 Not significant **GPRASP2** Not significant **GPRIN3** Not significant GPS1 Not significant GPS2 Not significant GPSM3 Not significant GPX4 Not significant Not significant GRAMD1A

GRAMD1B Not significant
GRAMD4 B down
GRAP B down

GRAP2 Not significant
GRASP Not significant

GRB2 B down

GRHPR Not significant **GRINA** Mono late up Not significant GRIPAP1 GRK2 Global down GRK5 Not significant GRK6 Not significant **GRN** Mono early down **GRPEL2** Not significant GRSF1 Not significant GRWD1 Not significant **GSDMD** Global up

GSE1 Mono early down GSK3A Not significant GSK3B Not significant **GSKIP** Not significant Not significant **GSN** Not significant GSPT1 GSPT2 Not significant **GSR** Not significant NK mid up GSTK1

GSTM2 Not significant GSTM5 Not significant GSTP1 Not significant GSTZ1 Not significant GTF2A1 Not significant GTF2A2 Not significant GTF2B Mono late down GTF2E2 Not significant GTF2F1 Not significant GTF2F2 Not significant

GTF2H1 Not significant GTF2H3 Not significant GTF2H5 Not significant Global down GTF2I GTF3A B/T early up GTF3C1 Not significant GTF3C3 Not significant GTF3C4 Not significant Not significant GTF3C5

GTPBP1 Not significant
GTPBP10 Not significant
GTPBP4 Not significant
GTPBP8 Not significant
GUF1 Not significant

CUIVI	Niakai amidiaa ak
GUK1	Not significant
GYG1	Not significant
GZF1	Not significant
GZMB	Lymph late up
GZMH	Not significant
GZMK	
	Not significant
H1FX	Not significant
H2AFJ	Mono late up
H2AFV	Mono early up
H2AFX	Not significant
H2AFY	Not significant
H2AFZ	NK mid up
HABP4	Not significant
HACD3	Not significant
HACD4	_
	Not significant
HACE1	Not significant
HACL1	Not significant
HADH	Not significant
HADHA	Not significant
HADHB	Not significant
HAGH	Not significant
HARS	Mono late up
HARS2	Not significant
HAT1	Not significant
HAUS1	Not significant
HAUS2	Not significant
HAUS3	Not significant
	_
HAUS6	Not significant
HAUS7	Not significant
HAUS8	Not significant
HAX1	Not significant
HBA1	Not significant
HBP1	Not significant
HBS1L	Not significant
HCFC1	Not significant
HCLS1	Global down
HCST	Not significant
HDAC2	Not significant
HDAC3	-
	Not significant
HDAC4	Not significant
HDAC5	Not significant
HDAC6	Not significant
HDAC7	Not significant
HDDC2	Not significant
HDDC3	Not significant

HDGF Global down HDGFL2 Not significant Not significant HDHD5 Not significant **HDLBP** HEATR1 Not significant HEATR3 Not significant **HEATR5A** Not significant HEATR5B Not significant HEATR6 Not significant HEBP1 Not significant HEBP2 Mono late down **HECA** Not significant HECTD1 Not significant HECTD3 Not significant HECTD4 Not significant Not significant **HELB** Not significant **HELLS** Not significant **HELQ HELZ** Not significant HELZ2 Global up

HEMK1 Not significant
HERC1 Mono early down
HERC2 Not significant
HERC3 Not significant
HERC4 Not significant
HERC5 Global up
HERC6 Global up

HERPUD1 Mono late down B/T early up HERPUD2 **HEXA** Not significant Mono late down **HEXB HEXDC** Not significant HEXIM1 Not significant HGS Not significant Not significant **HGSNAT HIBCH** Not significant HIF1A Global up

HIKESHI Not significant
HINFP Not significant
HINT1 Global late down
HINT2 Not significant
HIP1R B down

HIPK1 Not significant
HIPK2 Not significant
HIPK3 Not significant

HIRA Not significant HIST1H1D Not significant Not significant HIST1H2AC Mono late up HIST1H2BD HIST2H2AA4 Mono early up Not significant HIVEP1 HIVEP2 Global down HIVEP3 Not significant HK1 Mono early up **HLTF** Not significant **HM13** Not significant HMBOX1 Not significant **HMBS** Not significant

HMCES B down

HMG20A Not significant
HMG20B Not significant
HMGB1 Not significant
HMGB3 Not significant
HMGCL Not significant
HMGCR Not significant
HMGN1 Global up

HMGN1 HMGN3 Not significant Not significant HMGN4 HMGN5 Not significant HMGXB3 Not significant HMGXB4 Not significant Global late down HMOX2 HNRNPA0 Not significant HNRNPA1 Lymph late up HNRNPA2B1 Not significant Lymph late up HNRNPA3 **HNRNPAB** Mono late down

HNRNPC Global up B/T early up **HNRNPDL HNRNPF** Mono early up Mono early down HNRNPH1 HNRNPH2 Not significant HNRNPH3 Not significant **HNRNPK** Not significant Mono late down HNRNPL **HNRNPLL** Not significant **HNRNPM** Global down **HNRNPR** Not significant **HNRNPU** Lymph late up HNRNPUL1 Not significant

HOOK1 Not significant Global up

HOOK3 **HOPX** Global late down Global down HP1BP3 HPCAL1 Not significant HPCAL4 Not significant HPRT1 Not significant HPS1 Not significant HPS4 Not significant HPS5 Mono late down **HPSE** Not significant **HRAS** Not significant HS2ST1 Not significant HSBP1 Not significant

HSBP1L1 Not significant Not significant **HSCB** Not significant HSD17B10 HSD17B11 Not significant HSD17B4 Not significant Not significant HSD17B7 HSD17B8 Not significant HSD3B7 Not significant

HSDL2 Not significant Not significant HSF1 HSF₂ Not significant HSP90AB1 Global down HSP90B1 Mono early up HSPA13 Not significant HSPA14 Not significant HSPA4 Not significant

B/T early up HSPA5

HSPA8 B down HSPA9 Not significant HSPBAP1 Not significant HSPBP1 Not significant HSPD1 Lymph late up HSPH1 Mono early down HTATSF1 Not significant Not significant HTRA2 Not significant HTT **HUWE1** Mono early down HYI Not significant Not significant HYOU1

HYPK Not significant IAH1 Not significant

IARS Not significant IARS2 Not significant **IBTK** Not significant Not significant ICAM₂ ICAM3 Mono late down Mono early down ICE1 ICE2 Not significant **ICK** Not significant **ICMT** Not significant B/T early up **ICOS** B/T early up ID2 ID3 Not significant **IDE** Not significant Not significant IDH1 IDH2 NK mid up Not significant IDH3A Not significant IDH3B Not significant IDH3G **IDNK** Not significant IER2 Not significant Mono early down IFFO1 IFI16 Global up **IFI27** Global up

IFI27L2 Mono early up IFI30 B down IFI35 Global up **IFI44** Global up IFI44L Mono late up IFI6 Global up IFIH1 Global up Mono late up IFIT1 IFIT2 Mono late up Global up

IFIT3 IFIT5 Not significant Not significant IFNAR1 IFNAR2 Not significant **IFNG** Not significant IFNGR1 Not significant IFRD1 Not significant Not significant IFRD2 IFT172 Not significant IFT43 Not significant Not significant IFT46 Not significant IFT57 IFT74 Not significant

IFT80 Not significant IFT88 Not significant IGBP1 Not significant Not significant IGF1R IGF2R Not significant IGFLR1 Not significant **IGHM** Lymph late up **IGKC** Lymph late up ΙK Not significant Not significant **IKBKE IKBKG** Not significant IKZF1 Not significant IKZF3 Not significant IKZF4 Not significant IKZF5 Not significant IL10RA Mono late down Not significant IL11RA **IL15** Not significant **IL16** Global down IL17RA Not significant **IL18R1** Not significant IL21R Not significant IL23A Not significant IL27RA B down IL2RA Not significant

IL2RB Global late down IL2RG Not significant IL4R Not significant Not significant IL6R **IL6ST** Not significant IL7R B/T early up ILF2 Not significant ILF3 Mono early down **ILK** Not significant **ILKAP** Not significant **ILVBL** Not significant IMMP1L Not significant **IMMT** Not significant IMP4 Not significant Not significant IMPA1 **IMPACT** Not significant IMPAD1 Not significant

IMPDH2

ING1 ING2 Not significant

Not significant

Not significant

ING3 Not significant ING4 Not significant ING5 Not significant Not significant **INO80** INO80C Not significant INO80E Not significant **INPP4A** Not significant INPP4B Not significant INPP5D Not significant **INPP5F** Not significant **INPP5K** Not significant B down

INPPL1 INSIG1 Mono late down **INSIG2** Not significant INTS1 Not significant INTS10 Not significant Not significant INTS11 Not significant INTS12 INTS13 Not significant INTS2 Not significant INTS3 Not significant INTS4 Not significant INTS6 Not significant INTS6L Global late down INTS7 Not significant

INTS8 Not significant Not significant INTS9 **INVS** Not significant IP6K1 Not significant IP6K2 Not significant IPCEF1 B/T early up **IPO11** Not significant IPO4 Not significant IPO₅ Not significant IPO7 Not significant IPO8 Not significant IPO9 Not significant

IQCC Not significant
IQCE Not significant
IQGAP1 Global late down
IQCAP2 Redown

Not significant

IQGAP2 B down IQSEC1 B down

IQCB1

IRAK1 Not significant IRAK1BP1 Not significant

IRAK2 Not significant IRAK4 Not significant IRF1 NK mid up Not significant IRF2 IRF2BPL Not significant Not significant IRF3 IRF4 Not significant IRF7 Global up IRF9 Global up IRS1 Not significant B/T early up ISCA1 **ISCU** Not significant ISG15 Global up ISG20 Global up

ISG20L2 Not significant Not significant ISOC1 Not significant IST1 Not significant **ITCH** ITFG1 Not significant Not significant ITFG2 ITGA1 Not significant ITGA4 Global late down ITGA5 Not significant B/T early up ITGA6 Not significant **ITGAE ITGAL** NK mid up ITGB1 Global down

Not significant

ITGB2 B down ITGB7 NK mid up B/T early up **ITK** ITM2A B/T early up ITM2B B/T early up ITM2C Not significant **ITPA** Not significant ITPK1 NK mid up **ITPKC** Not significant ITPR1 Not significant ITPR2 B down

ITGB1BP1

ITPR3 Not significant
ITPRIPL1 Not significant
ITSN1 Not significant
IVD Not significant

IVNS1ABP Global late down
IWS1 Not significant

JADE1 Not significant

JADE2 B down

JAGN1 Not significant
JAK1 Global late down

JAK2 B/T early up
JAK3 Not significant
JAKMIP1 Not significant
JAKMIP2 Not significant
JAML Mono late down
JARID2 Mono early down
JKAMP Not significant

JMJD1C Mono late down
JMJD6 Not significant
JMY B/T early up
IOSD1 Not significant

JPT1 Not significant
JRK Not significant
JRKL Not significant
JTB Not significant
JUNB Not significant

JUND Not significant
KANSL1 Not significant
KANSL1L Not significant
KANSL2 Not significant
KAT14 Not significant

KAT2B Not significant
KAT5 Not significant
KAT6A Not significant
KAT6B Mono early down

KAT7 Not significant
KAT8 Not significant
KATNA1 Not significant
KATNBL1 Not significant

KBTBD2 Not significant
KBTBD3 Not significant
KBTBD7 Not significant
KCMF1 Not significant
KCNA3 Mono late down

KCNAB2

KCNMB4

KCNN4

KCNQ5

Not significant

Not significant

Not significant

Not significant

KCTD10 Not significant KCTD17 Not significant

KCTD2 Not significant

KCTD20 Not significant KCTD5 Not significant KCTD6 Not significant Not significant KCTD9 KDELR1 Not significant Not significant KDELR2 KDM1A Mono late down KDM1B Not significant KDM2A Not significant KDM2B Not significant KDM3A Not significant KDM3B Not significant KDM4A Not significant B down

KDM4B KDM4C Not significant Mono early down KDM5A Not significant KDM5B Not significant KDM5C KDM5D Not significant KDM6A Not significant KDM7A Not significant **KDSR** Not significant KEAP1 Not significant KHDC4 Not significant KHDRBS1 Not significant KHK Not significant Not significant **KHNYN KHSRP** Not significant Global down **KIAA0040 KIAA0100** Not significant

Mono early down KIAA0232 KIAA0319L Not significant **KIAA0355** Not significant **KIAA0408** Not significant **KIAA0556** Not significant Not significant KIAA0586 KIAA0753 Not significant KIAA0930 Not significant **KIAA1143** Not significant Not significant **KIAA1191 KIAA1324** Not significant

KIAA1328 Not significant
KIAA1468 Not significant
KIAA1549 Not significant
KIAA1586 Not significant

KIAA2013	Not significant
KIDINS220	Not significant
KIF16B	Mono early down
KIF1BP	Not significant
KIF1C	Not significant
KIF20B	Not significant
KIF21B	Not significant
KIF22	Not significant
KIF27	Not significant
KIF2A	Not significant
KIF3A	
	Not significant
KIF3B	Not significant
KIF3C	Not significant
KIF5B	Not significant
KIFAP3	Not significant
KIN	Not significant
KIZ	Not significant
KLC1	Global down
KLC2	Not significant
KLC4	Not significant
KLF10	B/T early up
KLF11	Not significant
KLF12	Not significant
KLF2	Not significant
KLF3	Global down
KLF4	Mono late down
KLF6	Global late down
KLF8	Not significant
KLHDC1	Not significant
KLHDC2	Not significant
KLHDC4	Not significant
KLHDC4 KLHDC8B	Not significant
KLHL12	Not significant
KLHL15	_
	Not significant
KLHL18	Not significant
KLHL2	Not significant
KLHL24	Not significant
KLHL28	Not significant
KLHL3	Not significant
KLHL36	Not significant
KLHL5	Not significant
KLHL6	Not significant
KLHL7	Not significant
KLHL8	Not significant
KLHL9	Not significant

KLRB1	Global late down
KMT2B	Not significant
KMT2D	Not significant
KMT2E	Mono early down
KMT5A	Not significant
KMT5B	Not significant
KNL1	Not significant
KNOP1	_
	Not significant
KPNA1	Not significant
KPNA2	Not significant
KPNA3	Not significant
KPNA4	Not significant
KPNA5	Not significant
KPNA6	Not significant
KPNB1	NK mid up
KPTN	Not significant
KRAS	Not significant
KRBOX4	Not significant
KRCC1	Not significant
KRI1	Not significant
KRIT1	Not significant
KRR1	Lymph late up
KRT10	Mono late down
KRTCAP2	Mono late down
KTN1	Not significant
KYAT3	Not significant
L3MBTL1	Not significant
L3MBTL2	Not significant
L3MBTL3	Mono early down
LACTB	Mono late up
LAIR1	Global late down
LAMP1	Not significant
LAMP2	Not significant
LAMTOR1	Not significant
LAMTOR2	Not significant
LAMTOR3	Not significant
LAMTOR4	Mono late down
LAMTOR5	Not significant
LANCL2	Not significant
LAP3	Mono late up
LAPTM4A	Not significant
LAPTM4B	Not significant
LAPTM5	Global late down
LARP1B	Not significant
LARP4	Not significant
	-

LARP7 Not significant **LARS** Not significant LAS1L Not significant Global down LASP1 LAT Not significant LATS1 Not significant LAX1 B/T early up LBH Not significant **LBR** Not significant **LCK** Global down LCLAT1 Not significant LCMT1 Not significant **LCOR** Not significant **LCORL** Not significant

LCP1 B down LCP2 Not significant Not significant LDB1 NK mid up **LDHA LDHB** Not significant Not significant **LDLR** Not significant LDLRAD4 LDOC1 Not significant LEF1 Global late down LEMD2 Not significant LEMD3 Not significant LENG1 Not significant LENG8 Not significant LEO1 Not significant Not significant LEPROTL1 LETM1 Not significant

LGALS3 Mono late down LGALS3BP Global up Global up

LFNG LGALS1

LGMN Mono late down
LIG1 Not significant
LIG3 Not significant
LIG4 Not significant
LIMA1 Not significant

Not significant

Mono late up

LIMD2 B down

LIMK2 Mono late up
LIMS1 Mono early up
LIN54 Not significant
LIN7B Not significant

LINS1 Not significant LIPA Mono late down LIPT1 Not significant Not significant LIX1L LLGL1 Not significant LLGL2 Not significant LMAN1 Not significant LMAN2 Mono late up LMBR1 Not significant LMBR1L Global down LMBRD1 Not significant LMBRD2 Not significant B down

LMNA LMNB1 Not significant LMNB2 Not significant LMTK2 Not significant Not significant **LNPEP LNPK** Not significant LONP1 Not significant LONP2 Not significant LPAR2 Not significant LPAR6 Not significant LPCAT1 Not significant LPCAT4 Not significant LPGAT1 Not significant

LPIN2 Not significant LPL Not significant **LPXN** Not significant Not significant LRCH1 LRCH3 Not significant Global down LRCH4 LRIF1 Not significant LRIG1 Not significant

LRMP Mono late down
LRP10 Not significant
LRPAP1 Not significant
LRPPRC Not significant
LRRC1 Not significant

LRRC28 Not significant
LRRC41 Not significant
LRRC47 Not significant
LRRC57 Not significant
LRRC59 Not significant

LRRC59 Not significant
LRRC6 Not significant
LRRC8A Not significant

LRRC8B Mono late down LRRC8C Not significant Not significant LRRC8D Not significant LRRCC1 LRRFIP1 Global down LRRFIP2 Not significant LRSAM1 Not significant LRWD1 Not significant LSG1 Not significant B down

LSM₁₀

LSM12 Not significant LSM14A Global late down LSM14B Not significant LSM₂ Not significant LSM3 Not significant LSM4 Global late down LSM7 Not significant LSM8 Not significant LSP1 Mono late down LSR Not significant LST1 Not significant **LTA** Not significant LTA4H Mono late down Global down LTB

LTBP3 Not significant LTBP4 Not significant LTN1 Not significant LUC7L Global down LUZP1 Not significant LY9 Not significant Not significant LY96 **LYAR** Not significant

LYNX1 Not significant LYPLA1 Not significant LYPLA2 Not significant LYPLAL1 Not significant LYRM1 Not significant LYSMD3 Not significant LYSMD4

Not significant **LYST** Mono late down LYZ Mono early up **LZIC** Not significant Not significant LZTFL1 Not significant LZTS2

M6PR Not significant MACO1 Not significant MAD1L1 Not significant MAD2L1BP Not significant Not significant MAD2L2 **MADD** Global down MAEA Not significant MAF Not significant Global down MAF1 **MAFF** Not significant **MAFG** Not significant MAGED1 Not significant MAGED2 Not significant MAGEH1 Not significant Not significant MAGI3 **MAGOH** Not significant Not significant **MAGOHB** Not significant MAIP1 Not significant MAK16 MALSU1 Not significant MALT1 Not significant Not significant MAML1 MAML2 Not significant MAML3 Not significant MAMU-A Global up MAMU-A3 Global up MAMU-AG Not significant Lymph late up MAMU-B MAMU-B18 Global up

MAMU-B18

MAMU-DPA

Mono late down

MAMU-DPB

Mono late down

MAMU-DRA

Mono late down

Global late down

MAMU-F

MAMU-I

MAMU-I

MAMU-I

MAMU-I

MONO I

MONO

MAMU-I Global up Not significant MAN1A1 Not significant MAN1B1 MAN1C1 Not significant MAN2A1 Not significant MAN2A2 Not significant Not significant MAN2B2 MAN2C1 Not significant **MANBAL** Not significant **MANEA** Not significant Not significant **MANF** MANSC1 Not significant

MAP10	Not significant
MAP1LC3B	Not significant
MAP2K1	Not significant
MAP2K2	Global down
MAP2K3	Not significant
MAP2K4	Not significant
MAP2K5	Not significant
MAP2K6	Not significant
MAP2K7	Not significant
MAP3K1	Not significant
MAP3K12	Not significant
MAP3K14	Not significant
MAP3K2	Not significant
MAP3K21	Not significant
MAP3K3	Not significant
MAP3K4	Not significant
MAP3K5	Not significant
MAP3K7	Not significant
MAP3K8	NK mid up
MAP4	Not significant
MAP4K1	Not significant
MAP4K2	Mono late down
MAP4K3	Not significant
MAP4K4	Global down
MAP4K5	Not significant
MAP7D1	Not significant
MAP7D3	Not significant
MAP9	Not significant
MAPK1	Not significant
MAPK14	Not significant
MAPK1IP1L	Not significant
MAPK3	Not significant
MAPK8IP3	Not significant
MAPK9	Not significant
MAPKAP1	Not significant
MAPKAPK2	Not significant
MAPKAPK3	Not significant
MAPKAPK5	Not significant
MAPKBP1	Not significant
MAPRE1	Not significant
MAPRE2	Global late down
MAPT	Not significant
	02-mar Not significant
	05-mar Not significant
	06-mar Not significant

07-mar Not significant 08-mar Mono early down

MARCKSL1 Not significant Not significant MARF1 MARK2 Not significant Not significant MARK3 MARK4 Not significant **MARS** Not significant MAST2 Not significant MAST4 Not significant **MASTL** Not significant MAT2A Not significant MAT2B Not significant MATK Not significant MATR3 Lymph late up Not significant MAU2 Not significant **MAVS** MAX Not significant MAZ Not significant Not significant MBD1 Mono late down MBD2 MBD3 Not significant MBD4 Not significant MBD6 Not significant **MBIP** Not significant MBNL1 Global late down Not significant MBNL3 Not significant MBOAT1 **MBP** Not significant MBTD1 Not significant MBTPS1 Mono late down MCCC1 Not significant MCCC2 Not significant MCF2L Not significant MCFD2 Not significant MCL1 Not significant MCM3 Not significant **МСМЗАР** Not significant MCM4 Not significant Not significant MCM6 MCM7 Not significant **MCMBP** Not significant Not significant MCOLN2 Not significant MCPH1 MCRS1 Not significant

MCTP2	Not significant
MCTS1	Not significant
MCU	Not significant
MCUR1	Not significant
MDC1	Not significant
MDFIC	Not significant
MDH1	Not significant
MDH2	Not significant
MDM1	Not significant
MDM2	Not significant
MDM4	Not significant
MDN1	Not significant
ME2	NK mid up
MEA1	Not significant
MEAF6	Not significant
MECP2	Not significant
MED1	Not significant
MED10	Not significant
MED12	Not significant
MED13	Not significant
MED13L	Mono late down
MED14	Not significant
MED14 MED15	Not significant
MED17	Not significant
MED17	Not significant
MED21	Not significant
MED21	Not significant
MED23	Not significant
MED25	-
MED27	Not significant
	Not significant
MED28	Not significant
MED29	Not significant
MED31	Not significant
MED31	Not significant
MED4	Not significant
MED6	Not significant
MED8	Not significant
MEF2A	Not significant
MEF2D	Not significant
MEMO1	Not significant
MEPCE	Not significant
MESD	Not significant
METAP1	Not significant
METAP1D	Not significant
METAP2	Not significant

METTL13 Not significant METTL14 Not significant Not significant METTL16 Not significant METTL17 METTL18 Not significant Not significant METTL21A METTL22 Not significant METTL23 Not significant METTL25 Not significant Not significant METTL26 METTL4 Not significant METTL5 Not significant METTL7A Not significant METTL9 NK mid up MEX3C Not significant MFAP1 Not significant Not significant MFAP3 **MFF** Not significant MFHAS1 Not significant Not significant MFN1 Global down **MFNG** MFSD1 Mono late up MFSD10 Not significant MFSD11 Not significant MFSD14A Not significant MFSD14B Not significant MFSD5 Not significant MFSD6 Not significant MFSD9 Not significant

MGAT1 B down

MGAT4A Not significant MGAT4B Not significant MGLL Not significant **MGMT** Not significant MGST3 Mono late down Not significant MIA3 MIB2 Not significant MICAL1 Not significant MICU1 Not significant Not significant MICU₂ MID1IP1 Not significant MID2 Not significant Not significant MIEF1 Not significant MIEF2 MIER1 B/T early up

Not significant MIER3 MIF Not significant MIGA1 Not significant Not significant MIGA2 MIIP Not significant Not significant MINDY1 MINDY2 Not significant MINDY3 Not significant MINK1 Not significant MINOS1 Not significant **MIOS** Not significant **MIPEP** Not significant **MIS12** Not significant MIS18A Not significant MIS18BP1 Not significant Not significant MITD1 **MKI67** Mono late up Not significant **MKKS** MKL1 Not significant MKL2 Not significant Not significant MKLN1 MKNK1 Not significant MKNK2 B down

MKRN1 Not significant MKRN2 Not significant **MLEC** Not significant Not significant MLF2 MLH3 Not significant Not significant MLLT1 MLLT10 Not significant Not significant MLLT11 MLLT3 Not significant MLLT6 Not significant MLST8 Not significant MLX Not significant **MLXIP** Not significant **MMAB** Not significant **MMADHC** Not significant **MMD** Not significant Not significant MMP24OS MMP25 Mono late up

> Not significant Not significant

> Not significant

Not significant

MMS19

MNAT1

MOAP1 MOB1A

MOB2	Not significant
MOB4	Not significant
MON2	Not significant
MORC2	Not significant
MORC3	Not significant
	~
MORF4L1	Mono early down
MORF4L2	Not significant
MOSPD2	Not significant
MOSPD3	Not significant
MPG	Not significant
MPHOSPH10	Not significant
MPHOSPH6	Not significant
MPHOSPH8	Not significant
MPHOSPH9	Not significant
MPLKIP	Not significant
MPP1	
	Mono late up
MPP7	Not significant
MPST	Not significant
MPV17	Not significant
MPZ	Not significant
MPZL1	Mono late up
MRE11	Not significant
MRFAP1	Global up
MRFAP1L1	Not significant
MRGBP	Not significant
MROH1	Not significant
MRPL1	Not significant
MRPL10	Not significant
MRPL11	_
	Mono early up
MRPL13	Not significant
MRPL15	Not significant
MRPL16	Not significant
MRPL17	Not significant
MRPL20	Not significant
MRPL21	Not significant
MRPL22	Not significant
MRPL23	Not significant
MRPL24	Not significant
MRPL28	Not significant
MRPL3	Not significant
MRPL30	Not significant
MRPL36	
	Not significant
MRPL37	Not significant
MRPL38	Not significant
MRPL4	Not significant

MRPL41	Not significant
MRPL44	Not significant
MRPL46	Not significant
MRPL47	Not significant
MRPL48	Not significant
	<u>-</u>
MRPL51	Mono late up
MRPL52	Not significant
MRPL55	Not significant
MRPL57	Not significant
MRPL58	Not significant
MRPL9	Not significant
MRPS11	Not significant
MRPS14	Not significant
MRPS16	Not significant
	<u>-</u>
MRPS17	Not significant
MRPS18A	Not significant
MRPS18B	Not significant
MRPS18C	Not significant
MRPS21	Not significant
MRPS22	Not significant
MRPS23	Not significant
MRPS25	Not significant
MRPS27	Not significant
MRPS30	Not significant
MRPS31	Not significant
	_
MRPS33	Not significant
MRPS34	Not significant
MRPS35	Not significant
MRPS36	Not significant
MRPS6	Not significant
MRPS7	Not significant
MRPS9	Not significant
MRTO4	Not significant
MS4A1	B down
MSANTD2	Not significant
MSANTD4	Not significant
	_
MSH2	Not significant
MSH3	Not significant
MSH6	Not significant
MSI2	Not significant
MSL1	Not significant
MSL2	Not significant
MSL3	Not significant
MSMO1	Not significant
MTA1	Not significant
· · · -	

MTA2 Not significant MTA3 Not significant **MTAP** Not significant NK mid up MTCH1 MTCH2 Mono late up MTCP1 Not significant **MTDH** Mono early down MTERF1 Not significant MTERF2 Not significant MTERF3 Not significant MTERF4 Not significant MTF1 Not significant MTF2 Not significant MTFR1L Not significant MTFR2 Not significant MTG2 Not significant Not significant MTHFD1 Not significant MTHFD1L MTHFD2 Not significant **MTHFS** Mono late up **MTHFSD** Not significant MTIF2 Lymph late up MTIF3 Not significant MTM1 Not significant MTMR1 Not significant MTMR10 Not significant Not significant MTMR12 MTMR3 Not significant MTMR4 Not significant MTMR6 Not significant Not significant MTO1 **MTOR** Not significant **MTPAP** Not significant **MTPN** Global late down **MTR** Not significant **MTREX** Not significant **MTRR** Not significant MTSS1 Mono early down MTX1 Not significant Not significant MTX2 MUL1 Not significant MUM1 Not significant Not significant MUS81 Not significant MUT **MUTYH** Not significant

MVB12A Not significant **MVP** Mono late up MX1 Global up Global up MX2

MXD4 Not significant MXI1 Not significant MXRA7 Not significant **MYADM** Global late down **MYB** Not significant MYBBP1A Not significant **MYC** Not significant MYD88 Mono early up

MYDGF Not significant MYH9 Global down MYL12A NK mid up Mono early up MYL12B Global down MYL6

Not significant MYL6B **MYLIP** Global late down **MYNN** Not significant Not significant MYO18A **MYO19** Not significant MYO1F Global down

MYO1G Not significant Global down MYO5A MYO6 Not significant Not significant MYO9A MYO9B Global down MYSM1 Not significant

Not significant

N4BP1 Global up

MZT2B

N4BP2 Not significant N4BP2L1 Not significant N4BP2L2 Not significant Not significant NAA10 NAA15 Not significant NAA16 Not significant NAA20 Not significant NAA25 Not significant Not significant NAA30 NAA35

Not significant NAA38 Not significant Not significant NAA50 Not significant NAA60 NAAA Mono late down NAB1 Not significant NACA2 Not significant NADK Mono late up Not significant NADK2 NADSYN1 Not significant Not significant NAE1 NAF1 Not significant NAGK Mono early up **NAGLU** Not significant Not significant NAIF1 **NAMPT** Mono late down **NANS** Not significant NAP1L4 Not significant NAPA Mono late up **NAPB** Not significant **NARF** Not significant Not significant **NARFL** Not significant **NARS** NARS2 Not significant NAT10 Not significant Not significant NAT9 **NAXE** Not significant **NBAS** Not significant **NBEA** Not significant NBEAL1 Not significant NBEAL2 Not significant Mono late up NBN Not significant NBR1 Not significant **NCALD** NCAPD2 Not significant NCAPD3 Not significant NCAPG2 Not significant NCAPH2 Not significant NCBP1 Not significant NCBP2 Mono late up NCBP3 Not significant NCF₂ Not significant NCF4 Mono late up NCK2 Not significant

NCKAP1L B down

NCL Lymph late up
NCLN Not significant
NCOA1 Mono early down
NCOA2 Not significant
NCOA3 Mono early down

NCOA4	Not significant
NCOA5	Not significant
NCOA6	Not significant
NCOA7	-
	Mono late up
NCOR2	Not significant
NCSTN	Not significant
NDC1	Not significant
NDC80	Not significant
NDEL1	Not significant
NDFIP1	Not significant
NDFIP2	<u>-</u>
	Not significant
NDRG1	Not significant
NDRG2	Mono late down
NDRG3	Not significant
NDST2	Not significant
NDUFA10	Not significant
NDUFA11	Mono late down
NDUFA12	Not significant
NDUFA4	Not significant
NDUFA8	Not significant
NDUFAB1	Not significant
NDUFAF1	Not significant
NDUFAF2	Not significant
NDUFAF3	Not significant
NDUFAF4	Not significant
NDUFAF5	Not significant
NDUFAF7	Not significant
NDUFAF8	Not significant
NDUFB1	Not significant
NDUFB10	B/T early up
	• •
NDUFB2	Not significant
NDUFB4	Not significant
NDUFB5	Not significant
NDUFB6	Mono late down
NDUFB8	Not significant
NDUFB9	Mono late up
NDUFC2	Mono late up
NDUFS1	Not significant
NDUFS2	Not significant
NDUFS3	Not significant
NDUFS4	Not significant
NDUFS6	Not significant
NDUFS7	Not significant
NDUFS8	Not significant
	_
NDUFV1	Not significant

NDUFV3
NECAP2
Not significant
NEDD1
Not significant
NEDD4
Not significant
NEDD4
Not significant
NEDD8
Neceptor

NEDD8 B down NEDD9 Not significant NEIL1 Not significant NEIL2 Not significant NEK1 Not significant NEK3 Not significant NEK4 Not significant NEK6 Not significant

NEK7 Global late down
NEK8 Not significant
NEK9 Not significant
NELFA Not significant
NELFB Not significant
NELFCD Not significant

NELFE Not significant
NEMF Mono early down
NENF Not significant
NEPRO Not significant
NET1 Not significant
NEU3 Not significant
NEURL4 Not significant

NF1

NF2 Not significant
NFAT5 Not significant
NFATC2 Not significant
NFATC2IP Not significant
NFATC3 Not significant
NFE2L1 Not significant
NFE2L2 Not significant

Not significant

NFE2L2 Not significant
NFIC Not significant
NFIL3 Mono early up
NFIX Not significant

NFKB1 B down

NFKB2 Not significant

NFKBIA Global up

NFKBIB Not significant
NFKBIE Global up

NFKBIL1 Not significant
NFKBIZ Mono late down

NFRKB Not significant

NFS1 Not significant NFX1 Not significant **NFYA** Not significant Not significant **NFYB NFYC** Not significant **NGDN** Not significant NGLY1 Not significant Not significant NGRN NHLRC2 Not significant NHLRC3 Not significant NICN1 Not significant **NIFK** Not significant NIN Mono early down NINJ1 Not significant NIPA2 Not significant NIPAL3 Not significant Mono early down **NIPBL** NIPSNAP2 Not significant NIPSNAP3A Not significant **NISCH** Not significant Not significant NIT2 **NKAP** Not significant NKAPD1 Not significant NKG2D Not significant **NKIRAS2** Not significant **NKRF** Not significant Not significant NLE1 NLN Not significant Not significant NLRC5 NLRX1 Not significant Not significant NMD3 NME2 Global late down NME4 Not significant NME6 Not significant NMI Global up NMNAT1 Not significant NMRAL1 Not significant NMT1 Not significant NNT Not significant Not significant NOA1 NOB1 Not significant NOC2L Not significant Not significant NOC3L Not significant NOC4L

Not significant

NOL10

NOL11	Not significant
NOL12	Not significant
NOL4L	Not significant
NOL6	Not significant
NOL7	Not significant
	_
NOL8	Not significant
NOL9	Not significant
NOLC1	Not significant
NONO	Not significant
NOP14	Not significant
NOP16	Not significant
NOP2	Not significant
NOP53	Global down
NOP56	Not significant
NOP58	Not significant
NOP9	Not significant
NOSIP	Not significant
NOTCH1	Not significant
NOTCH2	Not significant
NOXA1	Not significant
NPAT	Not significant
NPC1	Not significant
NPEPL1	Not significant
NPEPPS	Not significant
NPHP3	Not significant
NPLOC4	
	Not significant
NPM3	Not significant
NPRL2	Not significant
NPTN	Not significant
NR1D1	Not significant
NR1D2	Not significant
NR1H2	Not significant
NR2C1	Not significant
NR2C2	Not significant
NR3C1	Global down
NR4A1	Mono late down
NR4A2	B/T early up
NR4A3	Not significant
NRAS	Not significant
NRBF2	Not significant
NRBP1	Not significant
NRDC	Not significant
NRDE2	Not significant
NRF1	Not significant
NRIP1	Not significant
IVI II	itot signincant

NRN1 Not significant **NRROS** Not significant Mono late down NSA₂ Lymph late up NSD1 NSD2 Not significant NSD3 Mono early down **NSDHL** Not significant **NSF** Not significant NSFL1C Not significant Not significant NSG1 NSL1 Not significant NSMCE4A Not significant **NSMF** Not significant NSRP1 Not significant NSUN2 Not significant Not significant NSUN3 Not significant NSUN4 Not significant NSUN5 NT5C Not significant NT5C2 Global down NT5C3A Global up NT5C3B Not significant Not significant NT5DC1 Not significant NTHL1 NTMT1 Not significant NUB1 NK mid up Not significant NUBP1 NUBP2 Not significant Not significant **NUBPL** NUCB1 Not significant B/T early up NUCB2 NUCKS1 Global up **NUDC** Not significant NUDCD1 Not significant Not significant NUDCD3 Not significant NUDT1 NUDT14 Not significant NUDT16L1 Not significant NUDT21 Not significant Not significant NUDT22 NUDT3 Not significant NUDT4 Not significant Not significant NUDT5 Not significant NUDT9 NUFIP1 Not significant

NUFIP2 Not significant NUMA1 Global down **NUMB** Not significant Not significant **NUP107 NUP133** Not significant Not significant **NUP153 NUP155** Not significant **NUP160** Not significant **NUP188** Not significant Not significant **NUP205 NUP210** B down NUP210L Not significant **NUP214** Not significant NUP50 Not significant NUP54 Not significant NUP58 Not significant Not significant NUP62 NUP85 Not significant NUP88 Not significant Not significant NUP93 NUP98 Not significant NUPL2 Not significant NUTF2 Not significant Not significant **NVL** Mono early down NXF1 NXPE3 Not significant NXT1 Not significant NXT2 Not significant OARD1 Not significant OAS1 Mono late up OAS2 Global up OAS3 Global up OASL Mono late up OAT Not significant OAZ1 Mono early up OAZ2 Not significant OCIAD1 Not significant ODC1 Global up ODF2 Not significant Not significant ODF2L ODR4 Not significant OFD1 Not significant Not significant **OGDH** Not significant OGFOD1

Not significant

OGFOD2

OGFR Not significant

OGT B down OLA1 Not significant Not significant OMA1 OPA1 Not significant **OPLAH** Not significant **OPTN** Mono late up ORAI1 Not significant ORAI3 Not significant ORC3 Not significant ORC4 Not significant ORC5 Not significant ORC6 Not significant

ORMDL1 Not significant ORMDL2 Not significant ORMDL3 Not significant Not significant OS9 **OSBP** Not significant

OSBPL11 Mono late down OSBPL1A Not significant OSBPL2 Not significant OSBPL3 Not significant OSBPL7 Not significant

OSBPL8 Not significant OSBPL9 Not significant OSER1 Not significant **OSGEP** Not significant OSGIN2 Not significant

Not significant OST4 OSTF1 Not significant Not significant OSTM1 OTUD4 Not significant OTUD5 Not significant OTUD6B Not significant OXA1L B/T early up

OXCT1 Not significant OXNAD1 Not significant OXR1 Not significant **OXSM** Not significant Not significant OXSR1 P2RX7 Not significant **P2RY10** Not significant

Not significant **P3H4** Not significant P4HA1

P4HB Not significant P4HTM Not significant PABPC1 Global late down PABPC4 Mono late down Not significant PACS1 PACS2 Not significant PACSIN2 Not significant PAF1 Not significant PAFAH1B1 Not significant PAFAH1B2 Not significant PAFAH1B3 Not significant PAFAH2 Not significant Not significant PAG1 **PAICS** Not significant PAIP1 Not significant PAIP2 Global late down PAK1IP1 Not significant

PAK2 B down Not significant PAK3 PAK4 Not significant Not significant PAM Mono late down PAN2 PAN3 Not significant PANK2 Not significant PANK3 Not significant PANK4 Not significant PANX1 Not significant **PAOX** Not significant PAPD4 Not significant PAPD5 Not significant PAPD7 Mono late up **PAPOLA** Global down **PAPOLG** Not significant PAPSS1 Not significant PARD3 Not significant PARD6B Not significant

PARN Not significant
PARP1 B down
PARP10 Global up

PARG

PARL

PARP11 Not significant

Not significant

Not significant

PARP14 Global up

PARP15 Not significant
PARP16 Not significant
PARP2 Not significant

Not significant PARP3 PARP4 Not significant PARP6 Not significant Not significant PARP8 PARP9 Global up Not significant **PARVB PARVG** Not significant **PASK** Not significant PATI Not significant PATL1 Not significant PATZ1 Not significant PAXIP1 Not significant PBDC1 Not significant PBRM1 Mono early down PBX2 Not significant Not significant PBX3 Not significant PBX4 Mono early up PCBP1 PCBP4 Not significant Not significant **PCCA PCCB** Not significant PCDHGC5 Not significant PCED1A Not significant PCED1B Lymph late up Mono early down PCF11 PCGF5 Not significant Not significant PCGF6 PCID2 Not significant Not significant PCIF1 PCK2 Not significant Mono early down PCM1 PCMTD1 Not significant PCMTD2 Not significant **PCNA** NK mid up PCNX1 Not significant PCNX2 Not significant PCP2 Not significant PCSK7 Not significant **PCTP** Not significant Not significant PCYOX1 PCYT1A Mono early down PCYT2 Not significant Not significant PDAP1 Not significant PDCD10 PDCD11 Not significant

PDCD2 Not significant PDCD4 Not significant PDCD5 Mono late up Not significant PDCD6IP PDCD7 Not significant Not significant PDCL3 PDE12 Not significant PDE3B Mono early down PDE4A Not significant B/T early up PDE4B PDE4D Not significant PDE4DIP Not significant PDE6D Not significant PDE7A Not significant PDE8A Not significant **PDF** Not significant Not significant **PDGFRA** Not significant PDHA1 **PDHB** Not significant **PDHX** Not significant PDIA3 NK mid up PDIA4 Mono late up PDIA5 Not significant PDIA6 Mono late up PDK1 Not significant PDLIM1 B down

Not significant PDLIM2 PDLIM5 Not significant PDP1 Not significant PDPK1 Not significant **PDPR** Not significant PDRG1 Not significant PDS5A Not significant PDS5B Not significant PDXDC1 Not significant **PDXK** Not significant PDZD11 Not significant PDZD4 Not significant PDZRN3 Not significant Not significant PEAK1 PEBP1 Mono late down PECAM1 Mono late down PEF1 Not significant

PELO PELP1 Not significant

Not significant

PEMT Not significant **PEPD** Not significant PER1 Not significant Not significant PER2 PER3 Not significant PES1 Not significant **PET100** Not significant PEX1 Not significant PEX16 Not significant PEX2 Not significant PEX5 Not significant PEX7 Not significant PF4 Not significant PFDN1 Not significant PFDN2 Not significant PFDN4 Not significant Global late down PFDN5 PFDN6 Not significant **PFKL** Not significant B down

PFN1 PGAP2 Not significant PGAP3 Not significant PGBD1 Not significant PGBD2 Not significant PGBD3 Not significant **PGD** Mono late up **PGGHG** Global down PGK1 Not significant **PGLS** Not significant PGM1 Not significant Not significant PGM₂ PGM2L1 Not significant PGM3 Not significant PGRMC2 Not significant PHACTR2 Not significant

PHACTR4 Not significant **PHAX** Not significant **PHB** Not significant PHB2 Not significant Not significant PHC1 PHC2 Not significant PHC3 Not significant Not significant PHF1 Not significant PHF10

PHF11 Global up PHF12 Not significant PHF14 Not significant PHF19 Not significant Not significant PHF2 PHF20 Not significant Not significant PHF20L1 PHF21A Not significant PHF23 Not significant PHF3 Mono early down PHF6 Not significant PHF7 Not significant PHF8 Not significant PHKA2 Not significant **PHKB** Not significant PHKG2 Not significant Not significant PHLDA1 Not significant PHLPP2 PHOSPHO2 Not significant PHPT1 Not significant Not significant PHRF1 Not significant PHTF1 PHTF2 Not significant **PHYH** Not significant PI4K2A Not significant Not significant PI4KA PI4KB Not significant PIAS1 Not significant PIAS2 Not significant PIAS3 Not significant PIAS4 Not significant PIBF1 Not significant

PICALM B down

PICK1 Not significant PIEZO1 Not significant Not significant **PIGA PIGC** Not significant **PIGF** Not significant **PIGG** Not significant **PIGH** Not significant **PIGK** Not significant **PIGQ** Not significant **PIGS** Not significant Not significant **PIGT PIGV** Not significant **PIGY** B/T early up

PIH1D1 Not significant PIK3AP1 Global up PIK3C2A Not significant Not significant PIK3C2B PIK3C3 Not significant Not significant PIK3CA PIK3CB Not significant PIK3CD Mono late up PIK3CG Not significant Not significant PIK3IP1 PIK3R1 Global late down PIK3R4 Not significant PIK3R5 Not significant **PIKFYVE** Not significant PIN1 Not significant PINK1 Not significant Global late down PIP4K2A PIP4K2B Not significant PIP4K2C Not significant PIP5K1A Not significant Not significant PITHD1 **PITPNB** Not significant PITPNC1 Not significant PITPNM1 B down PITPNM2 Not significant PITRM1 Not significant PJA1 Not significant

PIA2 Not significant PKN1 Not significant PKN₂ Not significant B/T early up PLA2G16 PLA2G4B Not significant PLA2G4C Mono late up PLA2G6 Not significant PLAC8 Mono late up PLAG1 Not significant PLAGL1 Not significant PLAGL2 Not significant PLCL1 Not significant Not significant PLCL2 PLCXD1 Not significant PLD3 Not significant **PLEC** Global down

PLEKHA1 PLEKHA2 Not significant

Not significant

Not significant PLEKHA3 PLEKHA5 Not significant PLEKHF2 Global late down Not significant PLEKHG1 PLEKHG2 Not significant Not significant PLEKHG3

PLEKHM2 B down PLEKHO1 Mono early down PLEKHO2 Not significant Not significant **PLGRKT** PLIN2 Not significant PLIN3 Not significant PLK2 Not significant PLK3 B/T early up PLOD3 Not significant PLP2 Not significant **PLPBP** Not significant PLPP2 Not significant PLPP5 Not significant Not significant PLRG1 PLXNA1 Not significant PLXNA3 Not significant PLXNC1 Not significant

PML Global up

PM20D2 PMEPA1

Not significant

Not significant

PMM1 Not significant PMM2 Not significant **PMPCB** Not significant PMS1 Not significant PMS2 Not significant **PMVK** Not significant **PNISR** Mono early down **PNKP** Not significant PNMA1 Not significant PNO₁ Not significant PNPLA6 Global late down PNPLA7 Not significant PNPLA8 Mono late down Not significant PNPT1

PNRC1 Global late down PNRC2 Not significant Not significant POC1B Not significant POC5 **POGK** Not significant

POGLUT1	Not significant
POGZ	Not significant
POLA1	Not significant
POLA2	Not significant
POLB	Not significant
POLD1	Not significant
POLD2	Not significant
POLD3	Not significant
POLDIP2	Not significant
POLE3	Not significant
POLE4	Not significant
POLG	Not significant
POLG2	Not significant
POLI	Not significant
POLK	Not significant
POLR1B	Not significant
POLR1C	Not significant
POLR1D	Not significant
POLR1E	Not significant
POLR2B	Not significant
POLR2D	Not significant
POLR2E	Not significant
POLR2G	Not significant
POLR2H	Not significant
POLR2I	Not significant
POLR2J	Not significant
POLR3A	Not significant
POLR3B	Not significant
POLR3C	Not significant
POLR3D	Not significant
POLR3E	Not significant
POLR3F	Not significant
POLR3G	Not significant
POLR3GL	Not significant
POLR3H	Not significant
POMGNT1	Not significant
POMGNT2	Not significant
POMK	Not significant
POMP	Not significant
POP4	Not significant
POP5	Not significant
POP7	Not significant
POR	Not significant
POT1	Not significant
POU2F1	Not significant

POU6F1 Not significant PPA1 Mono late up PPA2 Not significant Not significant **PPAN PPARA** Not significant **PPARD** Not significant **PPAT** Not significant **PPCDC** Not significant PPFIA1 Mono early down PPFIBP1 Not significant PPFIBP2 Not significant PPHLN1 Not significant **PPIA** Global up **PPIB** Mono late up **PPID** Not significant **PPIE** Not significant Not significant **PPIH** PPIL2 Not significant PPIL3 Not significant Not significant PPIL4 PPIL6 Not significant PPIP5K2 Not significant PPM1A Not significant PPM1B Not significant PPM1D Not significant PPM1G Not significant PPM1K Not significant PPM1M Not significant **PPOX** Not significant PPP1CB Not significant PPP1CC Not significant PPP1R10 Not significant PPP1R12A Mono early down PPP1R12B Not significant PPP1R12C Mono early down PPP1R13B Not significant PPP1R15A Mono late down PPP1R15B Not significant PPP1R16B Not significant Not significant PPP1R18 PPP1R2 Not significant PPP1R21 Not significant Not significant PPP1R35 Not significant PPP1R3B PPP1R7 Not significant

PPP1R8 Not significant

PPP1R9B B down PPP2CB Not significant Not significant PPP2R1A PPP2R1B Not significant PPP2R2A Mono late up PPP2R2D Not significant PPP2R3C Not significant PPP2R5A Not significant PPP2R5B Not significant PPP2R5C Global late down PPP2R5D Not significant PPP2R5E Not significant PPP3CA Global late down PPP3CB Not significant PPP3CC B/T early up

PPP3R1 Not significant PPP4C Not significant PPP4R2 Not significant PPP4R3A Not significant

Not significant PPP4R3B PPP5C Not significant PPP6C Not significant

PPP6R1 B down

PPP6R2 Not significant PPP6R3 Not significant PPRC1 Not significant PPT1 Mono late down PPWD1 Not significant PQBP1 Not significant Not significant PQLC1 **PRCC** Not significant PRDM1 Not significant PRDM10 Not significant Not significant PRDM2

PRDM8 Not significant PRDX1 Not significant PRDX3 Mono late down Not significant PRDX4 PRDX5 Not significant PRDX6 Not significant

Not significant

PRDM4

Not significant **PREB** Not significant **PREP PREPL** Not significant

Global late down PREX1 PRIM1 Not significant **PRIMPOL** Not significant Not significant PRKAA1 PRKAB1 Not significant **PRKACA** Not significant **PRKACB** Global late down PRKAG1 Not significant PRKAG2 Not significant PRKAR2A Not significant **PRKCB** Not significant **PRKCD** Not significant **PRKCE** Not significant **PRKCH** Global late down **PRKCI** Not significant **PRKCO** Not significant Not significant **PRKCSH** Not significant PRKD2 PRKD3 Not significant **PRKDC** Not significant Not significant **PRKRA PRKX** Not significant PRMT1 Not significant PRMT2 Not significant PRMT3 Not significant PRMT6 Not significant Not significant PRMT7 PRMT9 Not significant **PRNP** Mono late down PROS1 Not significant PROSER1 Not significant PRPF18 Not significant PRPF19 Not significant PRPF3 Not significant PRPF31 Not significant PRPF38A Not significant PRPF38B Mono early down PRPF39 Not significant PRPF4 Not significant PRPF40A Lymph late up PRPF40B Not significant PRPF6 Mono early down PRPF8 Not significant Not significant PRPS1 PRPS2 Not significant

PRPSAP1	Not significant
PRPSAP2	Not significant
PRR11	Not significant
PRR12	Not significant
PRR13	Global up
PRR14	Not significant
PRR14L	Not significant
PRRC2A	Not significant
PSAP	Mono late down
PSD4	
PSEN1	Not significant
	Not significant
PSIP1	Lymph late up
PSKH1	Not significant
PSMA1	Mono late up
PSMA2	Mono late up
PSMA3	Mono late up
PSMA4	Mono late up
PSMA5	Not significant
PSMA6	Mono late up
PSMA7	Mono late up
PSMB1	Not significant
PSMB2	Not significant
PSMB3	Not significant
PSMB4	Not significant
PSMB5	Not significant
PSMB6	Mono late up
PSMB8	Global up
PSMB9	Global up
PSMC1	Not significant
PSMC2	Not significant
PSMC3	Not significant
PSMC3IP	Not significant
PSMC4	Not significant
PSMC5	Not significant
PSMD1	Not significant
PSMD10	Not significant
PSMD11	Not significant
PSMD12	Not significant
PSMD13	Mono late up
PSMD14	Mono late up
PSMD2	Not significant
PSMD3	Not significant
PSMD4	Not significant
PSMD6	Not significant
PSMD7	Not significant

PSMD8 Not significant PSME1 B/T early up PSME2 Global up Not significant PSME3 PSME4 Not significant

PSMF1 Global up PSMG1 Not significant PSMG2 Not significant PSMG3 Not significant PSMG4 Not significant PSPC1 Not significant **PSTK** Not significant

PSTPIP1 B down

PTBP1 Not significant PTBP2 Not significant PTBP3 Not significant Not significant PTCD2 PTCD3 Not significant PTDSS1 Not significant **PTEN** Not significant Not significant **PTER** PTGER4 Mono early up Not significant PTGES2 PTGES3 Not significant PTGES3L-AARSD1 Not significant PTK2B Not significant PTOV1 Not significant PTP4A1 B/T early up PTP4A2 Mono late down

PTPN1 Global up

PTPA

PTPMT1

PTPN11 Not significant PTPN12 Mono late up PTPN13 Not significant PTPN22 Global late down PTPN23 Not significant PTPN4 Not significant PTPN6 Mono late down Not significant PTPN9 **PTPRA** Not significant **PTPRC** Global late down **PTPRCAP** Not significant **PTPRE** Not significant **PTPRI** Not significant

Not significant Not significant PTRH1 Not significant PTRH2 Not significant PTRHD1 Not significant Not significant PTTG1 Mono late down PTTG1IP PUF60 Not significant PUM1 Not significant PUM2 Not significant PUM3 Not significant **PURA** Not significant **PURB** Not significant PUS1 Not significant PUS3 Not significant PUS7 Not significant PUS7L Not significant PWP1 Not significant Not significant PWP2 PWWP2A Not significant **PXK** Not significant PXMP4 Not significant PXYLP1 Not significant Mono late up **PYCARD PYGB** Not significant **PYGM** Not significant PYGO2 Not significant PYHIN1 Not significant PYM1 Not significant PYROXD1 Not significant Global down **QARS QDPR** Not significant Not significant **QRICH1 QRSL1** Not significant QSER1 Not significant QTRT2 Not significant R3HCC1 Not significant R3HCC1L Not significant R3HDM1 Not significant R3HDM2 Not significant RAB10 Not significant Not significant RAB11A RAB11FIP2 Not significant RAB11FIP3 Not significant Not significant RAB11FIP4 Not significant RAB12 RAB18 Not significant

DAD1A	N = L = ' = 'C' = = L
RAB1A	Not significant
RAB21	Not significant
RAB22A	Not significant
RAB24	Mono late down
RAB27A	Global late down
RAB28	Not significant
RAB29	Not significant
RAB2A	Not significant
RAB2B	Not significant
RAB33B	Not significant
RAB35	Not significant
RAB37	Not significant
RAB3GAP1	Not significant
RAB3GAP2	Not significant
RAB40C	Not significant
RAB43	Not significant
RAB4A	Not significant
RAB4B	Not significant
RAB5A	Not significant
RAB5C	Global up
	•
RAB6A	Not significant
RAB7A	Not significant
RAB8A	Not significant
RAB8B	Not significant
RAB9A	Not significant
RABAC1	Global late down
RABEP1	Not significant
RABGAP1	Not significant
RABGAP1L	Not significant
RABGEF1	Not significant
RABGGTA	Not significant
RABGGTB	Not significant
RABIF	Not significant
	_
RABL2B	Not significant
RABL6	Not significant
RACK1	Global late down
RAD1	Not significant
RAD17	Not significant
RAD21	Mono late down
RAD23A	Not significant
RAD23B	Not significant
RAD50	Not significant
RAD51C	Not significant
RAD52	Not significant
RAE1	Not significant
IV ILI	Two Significant

RAF1 Mono late up RAI1 Not significant **RALA** Not significant Not significant **RALB** RALBP1 Not significant RALGAPA1 Not significant RALGAPA2 Not significant **RALGAPB** Not significant **RALGDS** Not significant RALGPS2 Not significant **RALY** Not significant **RAN** Not significant RANBP1 Not significant RANBP2 Mono early down RANBP3 Not significant Not significant RANBP9 Not significant RANGAP1

B down RAP1A

RAP1B B/T early up RAP1GDS1 Not significant RAP2C Not significant RAPGEF1 Not significant RAPGEF2 Global late down **RARA** Not significant RARRES1 Not significant RARRES3 Global up

Not significant **RARS** RARS2 Not significant Not significant RASA1 RASA2 Not significant Global down RASA3 RASGEF1A Not significant RASGEF1B Mono late down RASGRF2 Not significant Global late down RASGRP1 Global down RASGRP2 RASSF1 Global down

RASSF3 Global late down RASSF5 Global late down RASSF7 Not significant RB1 Not significant RB1CC1 Not significant **RBAK** Not significant Not significant RBBP5 RBBP6 Mono early down RBBP7

RBBP8

RBCK1

RBCK1

RBL1

RBL2

RBM10

RBM12

Not significant

Not significant

Rot significant

Not significant

Rot significant

Roun

RBM12 B down RBM12B Not significant RBM14 Not significant RBM15 Not significant **RBM17** Not significant RBM18 Not significant RBM19 Not significant RBM22 Not significant RBM23 Not significant Not significant RBM26 B/T early up RBM27 Not significant RBM28

RBM33 Not significant
RBM34 Not significant
RBM38 Not significant
RBM39 Mono late down
RBM41 Not significant
RBM42 Not significant

RBM43 Not significant
RBM45 Not significant
RBM46 Not significant
RBM48 Not significant
RBM5 Not significant

RBM6 Not significant
RBM7 Not significant
RBM8A Not significant
RBMS1 Not significant
RBMX2 Not significant

RBMXL1 Not significant
RBPJ Mono late down
RBSN Not significant
RBX1 Mono late up

RC3H1 Mono early down
RC3H2 Not significant
RCAN1 Not significant

RCAN3 Not significant
RCBTB1 Not significant
RCC1L Not significant
RCC2 Not significant

RCC2 Not significant

DCE1	Nick classic cont
RCE1	Not significant
RCHY1	Not significant
RCN1	Not significant
RCN2	Not significant
RCN3	Not significant
RCOR1	Not significant
RCOR3	Not significant
RCSD1	Mono late down
RDH10	Not significant
RDH5	Mono early up
RDX	Not significant
RECQL	Not significant
REEP3	-
	Not significant
REEP5	Not significant
REL	Not significant
RELA	Not significant
RELL1	Not significant
RELT	Not significant
REPIN1	Not significant
REPS1	Not significant
RER1	Not significant
RERE	Not significant
REST	Global down
RETREG1	Not significant
RETREG2	Not significant
REV1	Not significant
REV3L	Global down
REX1BD	Not significant
REXO1	Not significant
REXO2	Not significant
REXO4	Not significant
RF00001	Not significant
RF00003	Not significant
RF00015	Not significant
RF00019	_
	Not significant
RF00026	Not significant
RF00100	Not significant
RF00264	Not significant
RF00322	Not significant
RF00578	Not significant
RF01268	Not significant
RF01871	Not significant
RF02271	Not significant
RFC1	Mono early down
RFC3	Not significant

RFC4 Not significant **RFFL** Not significant **RFLNB** Lymph late up Not significant RFT1 RFTN1 Not significant RFX2 Not significant RFX3 Not significant RFX7 Not significant **RFXANK** Not significant Not significant **RGCC** B/T early up RGL2 RGS1 B/T early up RGS10 Not significant RGS14 Not significant **RGS16** Not significant B down **RGS19**

RGS2 Mono early up
RGS3 Not significant
RGS9 Not significant
RHBDD2 Not significant
RHCE Not significant
RHNO1 Not significant
RHOA Not significant

RHOA
RHOC
Not significant
RHOG
Not significant
RHOH
Not significant
RHOT1
RHOT2
Not significant
RIBC1
Not significant
Not significant
Not significant
Not significant

RIC3
RIC8A
Not significant
RIC8B
Not significant
RICTOR
RIF1
RILPL2
Not significant
RICPL2
Not significant

RING1 Not significant
RINT1 Not significant
RIOK1 Not significant
RIOK2 Not significant
RIOK3 Not significant
RIOX1 Not significant
RIOX2 Not significant

RIOX2 Not significant
RIPK1 Not significant
RIPK2 Not significant

RITA1 Not significant RLIF Not significant RLIM Not significant RMC1 Not significant RMDN1 Not significant RMDN3 Not significant RMDD1 Not significant RMND5 Not significant RMNSE4 Not significant RNASE4 Not significant RNASE6 Mono early up RNASEH1 Not significant RNASEH2 Not significant RNASEH2B NK mid up RNASEH2C Not significant RNASET2 Mono late down RNF10 Global down RNF10 Global down RNF11 Not significant RNF11 Not significant RNF11 Not significant RNF11 Not significant RNF114 Global up RNF115 Not significant RNF121 Not significant RNF121 Not significant RNF123 Not significant RNF126 Not significant RNF13 Not significant RNF13 Not significant RNF14 Not significant RNF167 Not significant RNF167 Not significant RNF187 Not significant RNF187 Not significant RNF180 Not significant RNF180 Not significant RNF181 Not significant RNF180 Not significant RNF181 Not significant RNF1820 Not significant RNF183 Not significant RNF184 Not significant RNF184 Not significant RNF185 Not significant RNF186 Not significant RNF187 Not significant RNF187 Not significant RNF181 Not significant RNF181 Not significant RNF181 Not significant RNF18	RIPOR2	Global down
RLF RLIM RMC1 RMC1 Not significant RMC1 RMDN1 RMDN3 RMDN3 Not significant RMDD1 RMND5A RMND5A RMND5B RNASE4 RNASE4 RNASE6 RNASE6 RNASEH1 RNASEH1 RNASEH2A RNASEH2B RNASEH2B RNASEH2C RNASET2 RNAFI0 RNF10 RNF11 RNF111 RNF111 RNF113A RNF114 RNF115 RNF115 RNF115 RNF116 RNF121 RNF121 RNF121 RNF123 RNF126 RNF13 RNF138 RNF130 RNF138 RNF138 RNF138 RNF144 RNF138 RNF144 RNF144 RNF146 RNF145 RNF146 RNF147 RNF146 RNF146 RNF147 RNF146 RNF147 RNF167 RNF168 RNF160 RNF160 RNF160 RNF160 RNF160 RNF161 RNF161 RNF161 RNF161 RNF161 RNF161 RNF161 RNF144 RNF145 RNF146 RNF145 RNF146 RNF146 RNF147 RNF167 RNF168 RNF167 RNF168 RNF167 RNF168 RNF160 RNF160 RNF160 RNF160 RNF161 RNF1		
RLIM RMC1 RMC1 Not significant RMDN1 RMDN3 Not significant RMDN3 RMND1 RMND5 RMND5A RMND5A RMND5B RNASE4 RNASE6 RNASE6 RNASE6 RNASEH1 RNASEH1 RNASEH2A RNASEH2B RNASEH2C RNASEH2C RNASET2 RNF110 RNF111 RNF111 RNF113 RNF114 RNF115 RNF114 RNF115 RNF115 RNF115 RNF116 RNF121 RNF123 RNF126 RNF126 RNF138 RNF130 RNF138 RNF14 RNF130 RNF138 RNF14 RNF14 RNF130 RNF14 RNF130 RNF138 RNF14 RNF14 RNF130 RNF14 RNF15 RNF14 RNF130 RNF14 RNF14 RNF15 RNF14 RNF15 RNF15 RNF15 RNF166 RNF138 RNF166 RNF178 RNF14 RNF14 RNF14 RNF14 RNF14 RNF15 RNF14 RNF14 RNF15 RNF14 RNF14 RNF15 RNF15 RNF167 RNF168 RNF168 RNF168 RNF167 RNF168 RNF168 RNF169 RNF100 RNF101		_
RMC1 RMDN1 RMDN3 RMDN3 Not significant RMND1 RMND5A RMND5A RMND5B RNASE4 RNASE6 RNASE6 RNASEH1 RNASEH2 RNASEH2C RNASEH2C RNF10 RNF11 RNF111 RNF113 RNF114 RNF115 RNF115 RNF115 RNF116 RNF121 RNF121 RNF123 RNF126 RNF138 RNF138 RNF138 RNF144 RNF138 RNF144 RNF138 RNF144 RNF144 RNF146 RNF145 RNF146 RNF145 RNF146 RNF146 RNF147 RNF167 RNF168 RNF160 RNF160 RNF160 RNF160 RNF161 RNF114 RNF115 RNF115 RNF130 RNF121 RNF121 RNF123 RNF126 RNF130 RNF130 RNF140 RNF141 RNF140 RNF141 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RN		
RMDN1 RMDN3 RMND1 RMND5A RMND5A RMND5B RNASE4 RNASE6 RNASE6 RNASEB1 RNASEH1 RNASEH2A RNASEH2B RNASEH2C RNASET2 RNF10 RNF111 RNF113 RNF114 RNF115 RNF115 RNF115 RNF116 RNF121 RNF121 RNF123 RNF121 RNF138 RNF121 RNF138 RNF138 RNF138 RNF144 RNF138 RNF138 RNF138 RNF144 RNF144 RNF144 RNF144 RNF145 RNF146 RNF145 RNF146 RNF146 RNF147 RNF167 RNF168 RNF160 RNF160 RNF160 RNF167 RNF167 RNF161 RNF161 RNF167 RNF168 RNF160 RNF160 RNF160 RNF160 RNF167 RNF167 RNF168 RNF20 RNF20 RNF219 RNF210 RNF219 RNF220 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF220 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF22 RNS significant RNF22 RNS significant RNF22 RNS significant RNF22 RN		
RMDD3 RMND1 RMND5A RMND5B RNASE4 RNASE4 RNASE6 RNASE6 RNASEH1 RNASEH1 RNASEH2A RNASEH2B RNASEH2C RNASET2 RNASET2 RNF110 RNF111 RNF113 RNF114 RNF115 RNF115 RNF121 RNF123 RNF126 RNF138 RNF138 RNF130 RNF144 RNF138 RNF144A RNF138 RNF144A RNF144A RNF145 RNF146 RNF146 RNF147 RNF167 RNF168 RNF167 RNF168 RNF160 RNF10 RNF160 RNF160 RNF11 RNF137 RNF146 RNF146 RNF146 RNF146 RNF146 RNF147 RNF146 RNF146 RNF146 RNF147 RNF167 RNF168 RNF167 RNF168 RNF167 RNF168 RNF167 RNF168 RNF187 RNF188		~
RMND1 RMND5A RMND5B RNASE4 RNASE4 RNASE6 RNASE6 RNASEH1 RNASEH1 RNASEH2A RNASEH2B RNASEH2C RNASET2 RNASET2 RNF100 RNF101 RNF111 RNF111 RNF113A RNF114 RNF115 RNF115 RNF115 RNF116 RNF123 RNF126 RNF138 RNF126 RNF138 RNF144 RNF138 RNF144 RNF138 RNF144 RNF144 RNF144 RNF144 RNF144 RNF144 RNF145 RNF146 RNF146 RNF146 RNF157 RNF167 RNF168 RNF167 RNF168 RNF160 RNF20 RNF20 RNF20 RNF21 RNF20 RNF187 RNF20 RNF187 RNF180 RNF190 RNF190 RNF191 RNF190 RNF191 RNF190 RNF191 RNF21 RNF22 RNS significant RNF21 RNF21 RNF21 RNF21 RNF21 RNF22 RNS significant RNF21 RNF21 RNF22 RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF220 RNS significant RNF220 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220		_
RMND5A RMND5B RNASE4 RNASE6 RNASE6 Mono early up RNASEH1 RNASEH2A RNASEH2A RNASEH2B RNASEH2C RNASET2 RNASET2 RNASET1 RNF10 RNF10 RNF10 RNF11 RNF111 RNF113A RNF114 RNF115 RNF115 RNF121 RNF123 RNF126 RNF123 RNF126 RNF138 RNF130 RNF130 RNF14 RNF130 RNF130 RNF130 RNF14 RNF130 RNF14 RNF157 RNF130 RNF144 RNF130 RNF144 RNF144A RNF144A RNF144A RNF145 RNF144 RNF145 RNF146 RNF146 RNF157 RNF167 RNF168 RNF168 RNF169 RNF187 RNF160 RNF187 RNF168 RNF187 RNF180 RNF187 RNF187 RNF180 RNF20 RNF214 RNF20 RNF214 RNF216 RNF214 RNF20 RNF216 RNF216 RNF216 RNF216 RNF217 RNF20 RNF218 RNF216 RNF219 RNF220 RNF219 RNF220 RNS significant RNF216 RNF216 RNF216 RNF217 RNF218 RNF218 RNF219 RNF220 RNS significant RNF219 RNF220 RNS significant RNF216 RNF219 RNF220 RNS significant RNF220 RNS significant RNF220 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNF219 RNS significant RNF220 RNS significant RNS significant RNS significant RNS significant RNS signi		<u>-</u>
RMND5B RNASE4 RNASE6 RNASE6 Mono early up RNASEH1 RNASEH2A RNASEH2A RNASEH2B RNASEH2C RNASET2 RNASET2 RNASET1 RNF110 RNF10 RNF103 RNF11 RNF111 RNF113A RNF114 RNF115 RNF115 RNF115 RNF115 RNF115 RNF121 RNF123 RNF120 RNF123 RNF124 RNF138 RNF130 RNF140 RNF130 RNF140 RNF138 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RNF140 RNF140 RNF140 RNF140 RNF141 RNF140 RNF141 RNF140 RNF14		
RNASE4 RNASE6 RNASEH1 RNASEH1 RNASEH2A RNASEH2B RNASEH2C RNASEH2C RNASET2 RNASET1 RNF10 RNF10 RNF103 RNF11 RNF111 RNF111 RNF113A RNF114 RNF115 RNF115 RNF115 RNF115 RNF121 RNF121 RNF123 RNF120 RNF123 RNF124 RNF138 RNF138 RNF130 RNF138 RNF130 RNF144 RNF130 RNF144 RNF130 RNF144 RNF144A RNF144A RNF145 RNF146 RNF145 RNF146 RNF146 RNF157 RNF167 RNF168 RNF167 RNF168 RNF187 RNF168 RNF187 RNF180 RNF180 RNF187 RNF180 RNF180 RNF187 RNF187 RNF187 RNF187 RNF187 RNF180 RNF180 RNF187 RNF187 RNF180 RNF187 RNF187 RNF187 RNF187 RNF188 RNC significant RNF187 RNF187 RNF188 RNC significant RNF187 RNF168 RNF187 RNC significant RNF187 RNF168 RNF187 RNC significant RNF187 RNF187 RNC significant RNF187 RNC significant RNF187 RNF187 RNC significant RNF219 RNF219 RNC significant RNF219 RNF220 RNC significant RNF219 RNF220 RNC significant		~
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RNASEH2C RNASET2 Mono late down RNF10 Global down RNF103 Mono late down RNF111 RNF111 RNF111 RNF113A RNF114 RNF115 RNF115 RNF121 RNF120 RNF128 RNF128 RNF128 RNF129 RNF189 RNF189 RNF189 RNF180 RNF190	_	_
RNASET2 RNF10 RNF10 RNF103 RNF111 RNF111 RNF111 RNF1114 RNF1144 RNF121 RNF125 RNF126 RNF138 RNF130 RNF138 RNF144 RNF144A RNF144A RNF145 RNF146 RNF145 RNF157 RNF167 RNF167 RNF168 RNF168 RNF187 RNF20 RNF20 RNF219 RNF210 RNF2110 RNF210 RNF211 RNF210		•
RNF10 RNF103 RNF111 RNF111 RNF1111 RNF113A RNF114 RNF115 RNF115 RNF121 RNF123 RNF126 RNF13 RNF130 RNF138 RNF144 RNF144 RNF144 RNF145 RNF146 RNF145 RNF146 RNF146 RNF157 RNF167 RNF167 RNF168 RNF168 RNF168 RNF187 RNF20 RNF20 RNF210 RNF220 RNF210 RNF210 RNF210 RNF210 RNF220 RNF210 RNF210 RNF210 RNF210 RNF220 RNF210 RNF220 RNF210 RNF210 RNF220 RNF2		
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RNF123 Not significant RNF13 Not significant RNF130 Mono late down RNF138 Not significant RNF144 Not significant RNF145 Not significant RNF145 Not significant RNF146 Not significant RNF157 Not significant RNF167 Not significant RNF167 Not significant RNF168 Not significant RNF168 Not significant RNF187 Not significant RNF2 Not significant RNF2 Not significant RNF2 Not significant RNF20 Not significant RNF214 Not significant RNF216 Not significant RNF219 Not significant RNF219 Not significant RNF219 Not significant RNF219 Not significant		_
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RNF14 Not significant RNF145 Not significant RNF146 Not significant RNF157 Not significant RNF167 Not significant RNF168 Not significant RNF187 Not significant RNF2 Not significant RNF2 Not significant RNF20 Not significant RNF214 Not significant RNF214 Not significant RNF216 Not significant RNF219 Not significant RNF219 Not significant RNF219 Not significant RNF220 Not significant		
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RNF146 RNF157 RNF167 RNF168 RNF187 RNF2 RNF2 RNF20 RNF214 RNF214 RNF216 RNF219 RNF220 Not significant RNF219 RNF220 Not significant RNF220 Not significant RNF210 RNF210 RNF210 RNF2110 RNF210 RNF2110		
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RNF187 Not significant RNF2 Not significant RNF20 Not significant RNF214 Not significant RNF216 Not significant RNF219 Not significant RNF219 Not significant RNF220 Not significant		_
RNF2 Not significant RNF20 Not significant RNF214 Not significant RNF216 Not significant RNF219 Not significant RNF220 Not significant		_
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RNF219 Not significant Not significant		
RNF220 Not significant		~
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KNF34 Not significant		
	KNF34	Not significant

RNF38	Not significant
RNF4	Not significant
RNF40	Not significant
RNF44	Not significant
RNF6	Not significant
RNF7	Not significant
RNF8	Not significant
RNGTT	Not significant
RNH1	_
	Not significant
RNMT	Not significant
RNPC3	Not significant
RNPEP	Not significant
RNPEPL1	Not significant
ROCK1	Mono early down
ROCK2	Mono late up
ROGDI	Not significant
ROMO1	Not significant
RORA	Global late down
ROS1	Not significant
RP2	Not significant
RP9	Not significant
RPA3	Not significant
RPAIN	Not significant
RPAP1	Not significant
RPAP2	Not significant
RPAP3	Not significant
RPF1	B/T early up
RPF2	Not significant
RPGR	Not significant
RPN1	Not significant
RPN2	Mono late down
RPP14	Not significant
RPP21	
	Not significant
RPP25L	Not significant
RPP30	Not significant
RPP38	Not significant
RPP40	Not significant
RPRD1A	Not significant
RPRD2	Not significant
RPS6KA1	Global down
RPS6KA2	Not significant
RPS6KA3	Not significant
RPS6KA5	Not significant
RPS6KB1	Mono late down
RPS6KB2	Not significant

RPS6KC1 Not significant **RPTOR** Not significant RPUSD1 Not significant Not significant RPUSD2 RPUSD3 Not significant **RRAGA** Not significant RRAGB Not significant **RRAGC** Not significant **RRAS** Not significant RRAS2 Not significant RRBP1 Lymph late up RREB1 Not significant RRM1 Not significant RRM2B Not significant RRN3 Not significant Not significant RRNAD1 Not significant RRP1 Not significant RRP12 RRP15 Not significant RRP1B Not significant Not significant RRP8 RRP9 Not significant RRS1 Not significant Not significant RSAD1 RSAD2 Global up RSBN1 Not significant Not significant RSBN1L RSF1 Mono early down RSL1D1 Lymph late up RSL24D1 Mono late down Not significant RSPH3 RSPRY1 Not significant RSRC1 Not significant RSRC2 Mono early down RSRP1 Mono early down RSU1 Not significant **RTCA** Not significant **RTCB** Mono late up RTF1 Mono early down Not significant RTF2 RTKN2 Not significant

RTN3 B down

RTL5

RTL6

RTN4 Mono late down

Not significant Not significant

RTN4IP1	Not significant
RTP4	Not significant
RTRAF	Not significant
RTTN	Not significant
RUBCN	Not significant
RUFY1	Not significant
RUFY2	Not significant
RUFY3	Not significant
RUNX1	Not significant
RUNX2	Not significant
RUNX3	Mono late down
RUVBL1	Not significant
RUVBL2	Not significant
RWDD1	Not significant
RWDD1	Not significant
RWDD2A RWDD2B	<u> </u>
RWDD4	Not significant
	Not significant
RXRB RXYLT1	Not significant
	Not significant
RYBP	Not significant
RYK	Not significant
S100A10	Global late down
S100A11	Mono early up
S100A4	Global down
S100A6	Mono late down
S100A8	Mono late up
S100A9	Mono late up
S100PBP	Not significant
S1PR1	Global late down
S1PR4	Not significant
SAAL1	Not significant
SACM1L	Not significant
SACS	Not significant
SAE1	Not significant
SAFB	Mono early down
SAFB2	Mono early down
SALL2	Not significant
SAMD1	Not significant
SAMD9	Global up
SAMD9L	Global up
SAMHD1	Global up
SAMM50	Not significant
SAMSN1	Mono late up
SAP130	Not significant
SAP18	B/T early up

SAP25 Not significant SAP30BP Not significant SAP30L Not significant Not significant **SARAF SARNP** Not significant **SARS** Not significant SARS2 Not significant SART1 Not significant SART3 Not significant SASH3 Not significant SASS6 Not significant SAT1 Global up SAT2 Not significant SATB1 Not significant SAYSD1 Not significant Not significant **SBDS** Not significant SBF1 Global down SBN01 SBN₀2 Not significant SC₅D Not significant SCAF11 Lymph late up SCAF4 Not significant SCAF8 Not significant SCAMP1 Not significant SCAMP2 Not significant SCAMP3 Not significant SCAND1 Not significant **SCAP** Not significant Mono late down SCARB2 **SCCPDH** Not significant Not significant SCFD1 SCLT1 Global up SCML1 Not significant

SCML4 Not significant SCNM1 Not significant SCO1 Not significant SCP2 Not significant **SCRIB** Not significant SCRN2 Not significant Not significant SCYL1 SCYL2 Not significant SCYL3 Not significant Not significant SDAD1 **SDCBP** Mono early up SDCCAG8 Mono early down SDE2 Not significant
SDF2 Not significant
SDF2L1 Not significant
SDF4 Global down
SDHA B down

SDHA SDHAF2 Not significant **SDHB** Mono early up SDR39U1 Not significant SEC11A Not significant SEC11C Not significant SEC13 Not significant SEC14L1 Not significant SEC14L2 Not significant SEC16A Not significant SEC22B Not significant SEC23B Not significant Not significant SEC23IP Not significant SEC24A

SEC24B Not significant SEC24D Not significant SEC31A Not significant SEC61A1 Not significant SEC61A2 Not significant SEC61B Not significant SEC62 Global down SEC63 Not significant SECISBP2 Mono early down SECISBP2L Not significant

Not significant SEL1L SEL1L3 Not significant Not significant **SELENOF SELENOH** Not significant **SELENOM** Not significant **SELENOO** Not significant **SELENOS** Not significant **SELL** Mono early up **SELPLG** Not significant

SEMA4A Not significant
SEMA4D Global late down
SENP2 Not significant
SENP5 Not significant
SENP6 NK mid up

SENP7 Not significant
SEPHS1 Not significant
SEPHS2 Not significant

SEPSECS Not significant

01-sep Not significant

11-sep B down

02-sep Not significant 03-sep Not significant 06-sep Not significant 07-sep Not significant 08-sep Not significant 09-sep Global down

SERBP1 Lymph late up
SERGEF Not significant
SERINC1 Not significant
SERINC3 Not significant
SERINC5 Not significant
SERPI Not significant
SERPINA1 Mono early up

SERPINA1 Mono early up
SERPINB1 Mono late up
SERPINB8 Not significant
SERPINB9 Not significant

SERPINB9

SERTAD1

SERTAD2

SERTAD3

SESN1

SESN2

Not significant

SETD1B

SETD3

Not significant

SETD5

Not significant

SETD6

Not significant

SETDB1

Not significant

SETDB2

Not significant

SETDB2

Not significant

Lymph late up

SF1 Mono early down
SF3A1 Not significant
SF3A2 Not significant
SF3A3 Not significant
SF3B1 Global late down
SF3B2 Not significant

SF3B3 Not significant
SF3B4 Not significant
SF3B5 Not significant
SF3B6 Not significant
SF11 Not significant

SFMBT1 Not significant

SFMBT2 Not significant Mono late down **SFPO SFSWAP** Mono early down Not significant SFT2D1 SGF29 Not significant SGK1 B/T early up SGK3 Not significant SGMS1 Not significant SGPL1 Global late down SGPP1 Not significant SGSM2 Not significant **SGTA** Not significant SH2B3 Not significant SH2D1A Not significant SH2D2A Not significant Not significant SH2D3A Not significant SH2D3C Mono late down SH3BGRL SH3BGRL3 Not significant SH3BP1 Not significant SH3BP2 Not significant SH3BP5 Not significant SH3BP5L Not significant SH3GLB1 Not significant SH3GLB2 Not significant SH3KBP1 Global down Not significant SH3RF2 **SHARPIN** Not significant Not significant SHC1 SHKBP1 Not significant Not significant SHMT2 SHOC2 Mono early down SHPRH Not significant SIAH1 Not significant SIAH2 Not significant B/T early up SIK1 SIK2 Not significant SIK3 Not significant SIKE1 Not significant Not significant SIL1 SIN3A Not significant SIN3B Not significant Not significant SIPA1 Not significant SIPA1L1 SIPA1L2 Not significant

CIRRO	N
SIRPG	Not significant
SIRT1	Not significant
SIRT2	Not significant
SIRT5	Not significant
SIRT6	Not significant
SIRT7	Not significant
SIT1	Not significant
SIVA1	Not significant
SKA2	Not significant
SKI	Not significant
SKIL	Not significant
SKIV2L	Not significant
SKP1	Not significant
SKP2	Not significant
SLA	_
	Not significant
SLAIN1	Not significant
SLAMF1	Not significant
SLBP	Not significant
SLC10A3	Not significant
SLC11A2	Not significant
SLC12A2	Not significant
SLC12A6	Not significant
SLC16A3	Mono late up
SLC16A5	Not significant
SLC16A7	Not significant
SLC17A5	Not significant
SLC17A3 SLC19A2	~
	Not significant
SLC1A5	Not significant
SLC20A1	NK mid up
SLC20A2	Not significant
SLC22A17	Not significant
SLC22A18	Not significant
SLC22A23	Not significant
SLC22A5	Not significant
SLC25A1	Not significant
SLC25A13	Not significant
SLC25A13	Not significant
SLC25A17	Not significant
SLC25A20	Not significant
SLC25A22	Not significant
SLC25A24	Not significant
SLC25A25	Not significant
SLC25A26	Not significant
SLC25A27	Not significant
SLC25A28	Not significant
	•

SLC25A3	B/T early up
SLC25A33	Not significant
SLC25A37	Mono late up
SLC25A37	Not significant
SLC25A30	Global late down
SLC25A4	Global late down
SLC25A44	Not significant
SLC25A44 SLC25A46	Not significant
	Mono late down
SLC25A5	
SLC25A6	Global late down
SLC26A6	Not significant
SLC27A1	Not significant
SLC27A2	Not significant
SLC2A1	Not significant
SLC2A3	Not significant
SLC2A4RG	Not significant
SLC30A5	Not significant
SLC30A6	Not significant
SLC30A7	Not significant
SLC30A9	Not significant
SLC35A3	Not significant
SLC35A4	Not significant
SLC35A5	Not significant
SLC35B1	Not significant
SLC35B2	Not significant
SLC35B3	Not significant
SLC35C2	Not significant
SLC35D1	Not significant
SLC35D2	Global late down
SLC35E3	Not significant
SLC35F2	Not significant
SLC35F6	Not significant
SLC37A1	Not significant
SLC37A3	Not significant
SLC37A4	Not significant
SLC38A1	Not significant
SLC38A10	Not significant
SLC38A2	Not significant
SLC38A5	Global up
SLC38A9	Not significant
SLC39A10	Mono early down
SLC39A11	Not significant
SLC39A13	Not significant
SLC39A3	Not significant
SLC39A6	Not significant

SLC39A7	Not significant
SLC39A8	Mono late up
SLC39A9	Not significant
SLC3A2	Not significant
SLC40A1	Not significant
SLC41A1	Not significant
SLC41A3	Not significant
SLC43A1	Not significant
SLC44A1	Not significant
SLC44A2	Global late down
SLC4A1AP	Not significant
SLC4A7	Not significant
SLC50A1	Not significant
SLC52A2	Not significant
SLC5A3	Not significant
SLC6A8	Not significant
SLC7A6OS	Not significant
SLC9A1	Not significant
SLC9A3R1	Not significant
SLC9A9	Not significant
SLCO3A1	Not significant
SLF1	Not significant
SLF2	Not significant
SLFN12L	Not significant
SLFN13	Not significant
SLFN5	Global up
SLIRP	Not significant
SLK	Global down
SLMAP	Not significant
SLTM	Lymph late up
SLU7	Lymph late up
SLX4IP	Not significant
SMAD2	Not significant
SMAD4	Not significant
SMAD5	Not significant
SMAP1	Not significant
SMAP2	Global up
SMARCA2	Mono early down
SMARCA4	Mono early down
SMARCA5	Global up
SMARCAD1	Not significant
CMADCAL 1	Not significant

SMARCC1 Mono early down SMARCC2 B down

Not significant Not significant

SMARCAD1 SMARCAL1

SMARCB1

SMARCD1 Not significant
SMARCE1 Not significant
SMC1A Not significant
SMC2 Not significant
SMC3 Lymph late up
SMC4 Lymph late up
SMC5 Mono early down

SMC6 NK mid up SMCHD1 Global up

SMCHD1 SMCO₄ Not significant SMDT1 Global late down SMG1 Not significant SMG5 Not significant SMG7 Not significant SMG9 Not significant Not significant SMIM11A Not significant SMIM12 Not significant SMIM13 SMIM14 Not significant SMIM15 Not significant

Not significant SMIM19 SMIM3 Not significant SMIM4 Not significant SMIM8 Not significant SMN1 Not significant SMNDC1 Lymph late up Not significant **SMOX** SMPD1 Not significant

SMPD4 Not significant
SMPDL3A Mono late up
SMS Not significant
SMTNL1 Not significant
SMU1 Not significant
SMURF2 Not significant
SMYD4 Not significant

SNAP23 Mono late down
SNAP29 Not significant
SNAP47 Not significant
SNAPC2 Not significant
SNAPC4 Not significant
SNAPC4 Not significant

Not significant

SMYD5

SND1 Mono early down
SNF8 Not significant
SNIP1 Not significant
SNN Mono late down

SNRK Global late down SNRNP200 Lymph late up Not significant SNRNP25 Not significant SNRNP27 SNRNP35 Not significant SNRNP48 Not significant **SNRPA** Not significant SNRPA1 B/T early up **SNRPB** Not significant SNRPB2 Not significant **SNRPC** Not significant SNRPD1 Not significant SNRPD2 Mono late up SNRPD3 Not significant **SNRPE** Not significant SNU13 Not significant Not significant **SNURF** Not significant SNW1 SNX1 Mono late up SNX11 Not significant SNX12 Not significant SNX13 Not significant SNX14 Not significant SNX15 Not significant SNX17 Not significant SNX19 Not significant Mono late up SNX2 SNX25 Not significant Not significant SNX27 SNX29 Not significant SNX3 B down SNX4 Not significant SNX5 Mono late down SNX6 Not significant SNX9 Not significant SOCS1 Not significant SOCS4 Not significant SOCS5 Not significant SOCS6 Not significant Not significant SOD1

SOD2 Mono late up
SON Mono early down
SORBS1 Not significant
SORBS3 Not significant
Global late down

SOS1 Lymph late up SOS2 Not significant SOX4 Not significant SP1 Not significant SP100 Global up SP2 Not significant SP3 Not significant SP4 Not significant SPAG16 Not significant SPAG7 Not significant SPAG9 Not significant **SPART** Not significant **SPAST** Not significant SPATA2 Not significant SPATA5 Not significant SPATA5L1 Not significant Not significant SPATA7 Not significant SPATS2 SPATS2L Mono late up SPCS1 Not significant SPCS2 Not significant SPCS3 Not significant **SPDEF** Not significant SPDL1 Not significant SPECC1L Not significant **SPEN** Mono early down SPG11 Not significant SPG21 Mono late down SPG7 Not significant SPICE1 Not significant Not significant **SPIDR** SPIN3 Not significant SPINT2 Not significant **SPN** Not significant SPNS1 Not significant Global down SPOCK2 **SPOP** Not significant **SPOPL** Not significant SPOUT1 Not significant SPPL2A Not significant **SPR** Not significant **SPRTN** Not significant SPRYD3 Not significant Not significant SPRYD7

Not significant

SPSB1

CDCDO	
SPSB3	Global down
SPTAN1	Global down
SPTBN1	Global down
SPTLC1	Not significant
SPTLC2	Not significant
SPTY2D1	Not significant
SQLE	Not significant
SQSTM1	Not significant
SRA1	Not significant
SRBD1	Not significant
SREBF2	Not significant
SREK1IP1	Not significant
SRF	Not significant
SRFBP1	Not significant
SRGN	B/T early up
SRI	Not significant
SRP14	Not significant
SRP54	
	Not significant
SRP68	Not significant
SRP72	Not significant
SRP9	Not significant
SRPK1	Not significant
SRPK2	Not significant
SRPRA	Not significant
SRRD	Not significant
SRRM1	Not significant
SRRT	Not significant
SRSF10	Not significant
SRSF11	Not significant
SRSF2	Not significant
SRSF3	Not significant
SRSF4	Not significant
SRSF6	Not significant
SRSF7	B/T early up
SRSF8	Not significant
SRSF9	Not significant
SRXN1	Not significant
SS18	Not significant
SS18L2	Not significant
SSB	Lymph late up
SSBP1	Not significant
SSBP2	Not significant
SSBP3	Not significant
SSBP4	Not significant
SSFA2	Mono late down
JJI AZ	Mono late down

SSH2	Lymph late up
SSR1	Not significant
	Global down
SSR2	
SSR3	Not significant
SSR4	Not significant
SSRP1	Not significant
	~
SSSCA1	Not significant
SSU72	Not significant
ST13	Not significant
ST3GAL1	Global down
ST3GAL4	Not significant
ST6GAL1	Not significant
ST6GALNAC4	Not significant
ST6GALNAC5	Not significant
ST6GALNAC6	Not significant
ST7L	Not significant
ST8SIA4	Not significant
STAG1	Not significant
STAG2	Not significant
STAG2	
	Not significant
STAM	Not significant
STAM2	Not significant
STAMBPL1	Not significant
STARD10	Not significant
STARD3	Not significant
STARD3NL	Not significant
STARD4	Not significant
STAT1	Global up
STAT2	Not significant
STAT3	<u> </u>
	Global up
STAT4	Not significant
STAT5A	Not significant
STAT5B	Not significant
STAT6	Mono late down
STAU1	Not significant
STAU2	Not significant
STIM1	Not significant
STIM2	Not significant
STIP1	Global down
STK10	Not significant
STK11	Global down
STK11IP	Not significant
STK17A	Global up
	•
STK24	B down
STK25	Global down

STK26	Global late down
STK3	Not significant
STK35	-
	Not significant
STK39	Not significant
STK4	Not significant
STK40	Not significant
STMN1	Not significant
STN1	Not significant
STOML2	Not significant
STRAP	Not significant
STRBP	Not significant
STRC	<u> </u>
	Not significant
STRIP1	Not significant
STRN	Not significant
STRN3	Not significant
STS	Not significant
STT3A	Not significant
STT3B	Mono early up
STUB1	Not significant
STX10	Not significant
STX11	Not significant
STX16	Not significant
STX17	Not significant
STX17	<u> </u>
	Not significant
STX2	Not significant
STX3	Not significant
STX4	Not significant
STX5	Not significant
STX6	Not significant
STX7	Not significant
STX8	Not significant
STXBP2	Not significant
STXBP3	Not significant
STXBP5	Not significant
STYX	_
	Not significant
SUB1	Mono early up
SUCLA2	Not significant
SUCLG1	Not significant
SUCLG2	Not significant
SUCO	Not significant
SUDS3	Not significant
SUFU	Not significant
SUGP1	Not significant
SUGP2	Not significant
SUGT1	Not significant
30011	ivoc significant

SUMF1 Not significant SUMO1 Not significant SUM₀₂ Not significant Not significant SUN1 SUN₂ Not significant SUPT16H Not significant SUPT20H Not significant SUPT3H Not significant SUPT4H1 Global up

SUPT5H Not significant SUPT6H Not significant SUPT7L Not significant SURF1 Not significant SURF2 Not significant SURF4 Not significant SUSD3 Not significant Mono late down SUSD6 SUZ12 Not significant **SVBP** Not significant **SVIL** Not significant **SVIP** Not significant

SWAP70 B down

SWT1 Not significant SYAP1 Not significant SYCE1 Not significant SYF2 Not significant **SYMPK** Not significant **SYNCRIP** Not significant Global down SYNE1 SYNE2 Global up

Not significant SYNE3 SYNGR2 Not significant SYNJ1 Not significant SYN₁2 Not significant **SYNRG** Not significant SYPL1 Not significant SYS1 Not significant SYTL1 Not significant SYTL2 Lymph late up Not significant SZRD1 SZT2 Not significant TAB1 Not significant Global late down TAB2 Mono early down TACC1

Not significant

TACC3

TADADA	N1 1 1 161 1
TADA2A	Not significant
TADA2B	Not significant
TADA3	Not significant
TAF1	Not significant
TAF10	Not significant
TAF11	Not significant
TAF12	Not significant
TAF15	Not significant
TAF1B	Not significant
TAF1C	Not significant
TAF1D	Not significant
TAF2	Not significant
TAF3	Not significant
TAF4	Not significant
TAF4B	Not significant
TAF5	Not significant
TAF5L	Not significant
TAF6	Not significant
TAF8	Not significant
TAF9	Not significant
TAF9B	_
	Not significant
TAGAP	B/T early up
TAGLN2	Global down
TALDO1	Not significant
TANC1	Not significant
TANGO6	Not significant
TANK	Global up
TAOK1	Not significant
TAOK2	Not significant
TAOK3	Mono early down
TAPBP	Not significant
TAPT1	Not significant
TARBP1	Not significant
TARBP2	Not significant
TARDBP	Not significant
TARS	Mono late up
TARS2	Not significant
TARSL2	Not significant
TASP1	Not significant
TATDN1	Not significant
TAX1BP1	B down
TAX1BP3	Not significant
TBC1D1	Not significant
TBC1D10C	Not significant
TBC1D13	Not significant
. 2 3 2 2 2 3	

TBC1D14 TBC1D15 TBC1D17 TBC1D22A TBC1D23 TBC1D24	Not significant Not significant Not significant Not significant Not significant Mono early up
TBC1D25 TBC1D2B	Not significant Not significant
TBC1D31	Not significant
TBC1D4 TBC1D5	Not significant Not significant
TBC1D9B	Not significant
TBCB	Not significant
TBCC TBCD	Not significant Not significant
TBCE	Not significant
TBCK	Not significant
TBK1	NK mid up
TBL1X	Not significant
TBL1XR1 TBL2	Not significant Not significant
TBL3	Not significant
ТВР	Not significant
TBPL1	Not significant
TBRG1	Not significant
TBRG4 TBX21	Not significant NK mid up
TBXA2R	Not significant
TC2N	Not significant
TCAF1	Not significant
TCAIM	Not significant
TCEA1	Not significant
TCEA2 TCEA3	Not significant Not significant
TCEAL1	Not significant
TCEAL8	Not significant
TCEANC	Not significant
TCEB2	Not significant
TCERG1 TCF12	Lymph late up
TCF20	Not significant Not significant
TCF25	Not significant
TCF3	B down
TCF7	Global late down
TCFL5	Not significant

TCHP Not significant TCIRG1 Mono early down TCOF1 Not significant TCP1 Not significant TCP11L2 Not significant **TDG** Not significant TDP2 Not significant TDRD3 Not significant TDRD7 Not significant Not significant TECPR1 TECPR2 Not significant **TECR** Not significant TEDC1 Not significant TEP1 Mono early down **TEPSIN** Not significant Not significant TERF1 Not significant TERF2 TERF2IP Not significant **TES** Global down **TESC** Global late down TESK1 Not significant TESK2 Not significant TESPA1 Not significant TET1 Not significant TET2 Not significant TET3 Not significant TEX10 Not significant TEX2 Not significant **TEX261** Not significant **TEX264** Not significant TEX30 Not significant **TFAM** Not significant TFB1M Not significant TFB2M Not significant TFCP2 Not significant TFDP1 Not significant TFDP2 Not significant TFE3 Not significant **TFG** Not significant TFIP11 Not significant **TFPT** Not significant **TFRC** Not significant Not significant **TGDS** Not significant TGFB1 TGFBR1 Not significant

TGFBR2 Not significant TGFBR3 Global late down TGFBRAP1 Not significant TGIF1 Not significant TGOLN2 Not significant TGS1 Not significant **THADA** Not significant THAP1 Not significant THAP11 Not significant Not significant THAP12 THAP5 Not significant THAP7 Not significant THBS3 Not significant **THEMIS** Not significant THOC1 Not significant THOC2 Mono early down THOC3 Not significant THOC5 Not significant THOC6 Not significant Not significant THOC7 THRAP3 Not significant THUMPD1 B/T early up THUMPD2 Not significant Not significant THUMPD3 THYN1 Not significant TIA1 Not significant TIAL1 Not significant TIAM1 Global down TIE1 Not significant **TIGAR** Not significant TIGD1 Not significant TIGD2 Not significant TIGD7 Not significant **TIMELESS** Not significant TIMM13 Not significant TIMM17A Not significant TIMM44 Not significant TIMMDC1 Not significant TIMP1 Not significant TINF2 Not significant **TIPARP** Not significant **TIPRL** Not significant TJP2 Not significant TK2 Not significant **TKT** Not significant

TLE2	Not significant
	B down
TLE3	
TLE4	Not significant
TLK1	Global down
TLK2	Not significant
TLN1	Global down
TM2D1	Not significant
TM2D3	Not significant
TM7SF2	Not significant
TM9SF1	Not significant
TM9SF2	Not significant
TM9SF3	Not significant
TM9SF4	Not significant
TMA7	Not significant
TMBIM1	Not significant
TMBIM6	Not significant
TMC6	Not significant
TMC8	Not significant
TMCC1	Not significant
TMCO1	Not significant
TMCO3	Not significant
TMED1	Not significant
TMED10	Global late down
TMED2	Not significant
TMED3	Not significant
TMED4	Not significant
TMED9	Not significant
TMEM106B	Not significant
TMEM106C	Not significant
TMEM107	Mono early down
TMEM109	Not significant
TMEM120A	Not significant
TMEM126B	Not significant
TMEM129	Not significant
TMEM131	Mono early down
TMEM131L	Not significant
TMEM134	Not significant
TMEM140	Not significant
TMEM141	Not significant
TMEM147	Not significant
TMEM14B	Mono late down
TMEM154	Not significant
TMEM156	Not significant
TMEM159	Not significant
TMEM161A	Not significant
	. To c organicanc

TMEM161B	Not significant
TMEM164	Not significant
TMEM165	Not significant
TMEM167A	Not significant
TMEM168	Not significant
TMEM173	Not significant
TMEM175	Not significant
TMEM179B	Not significant
TMEM18	Not significant
TMEM184C	Not significant
TMEM186	Not significant
TMEM187	Not significant
TMEM189	Not significant
TMEM192	Not significant
TMEM2	Not significant
TMEM203	Not significant
TMEM205	Not significant
TMEM206	Not significant
TMEM208	Not significant
TMEM219	Global down
TMEM222	Not significant
TMEM243	Not significant
TMEM248	Global late down
TMEM25	Not significant
TMEM250	Not significant
TMEM256	Not significant
TMEM258	Not significant
TMEM259	Global down
TMEM263	Not significant
TMEM30A	Not significant
TMEM33	Not significant
TMEM35B	Not significant
TMEM38B	Not significant
TMEM39A	Not significant
TMEM39B	Not significant
TMEM41B	Not significant
TMEM42	Not significant
TMEM43	Mono late down
TMEM50A	B/T early up
TMEM59	NK mid up
TMEM60	Not significant
TMEM62	Not significant
TMEM63A	Not significant
TMEM63B	Not significant
TMEM64	Not significant

TMEM70 Not significant **TMEM71** Not significant TMEM87A Not significant Not significant TMEM87B Mono late down TMEM8A TMEM9 Not significant TMEM91 Not significant TMEM94 Not significant **TMEM97** Not significant **TMEM99** Not significant TMEM9B Not significant TMF1 Not significant TMOD2 Not significant TMOD3 Mono late down TMOD4 Not significant **TMPO** Not significant Not significant TMTC2 Not significant TMTC3 TMTC4 Not significant TMX1 Not significant TMX3 Not significant TMX4 Not significant **TNFAIP3** B/T early up **TNFAIP8** Global down TNFRSF10A Not significant TNFRSF10B Not significant TNFRSF10D Not significant TNFRSF14 Mono late down TNFRSF18 Not significant TNFRSF1A Not significant TNFRSF1B Not significant TNFRSF25 Global down TNFSF10 Mono late up TNFSF12 Mono late down TNFSF13B Mono early up TNFSF4 Not significant TNFSF8 Not significant **TNIK** Not significant TNIP1 Not significant TNIP2 Not significant TNK2 Global up **TNKS** Not significant Not significant TNKS2 Not significant TNNC1

Not significant

TNNT3

TNPO1 Not significant TNPO2 Not significant TNPO3 Not significant Not significant TNRC18 TNRC6A Mono early down Not significant TNRC6C TOB1 B/T early up TOB2 Not significant TOE1 Not significant TOGARAM1 Not significant **TOLLIP** Not significant TOM1 Not significant TOMM20 Not significant TOMM22 Not significant **TOMM40** Not significant TOMM6 Not significant Not significant TOMM70 TOP1 Global up TOP1MT Not significant Not significant TOP2A TOP2B Global down TOP3A Not significant TOP3B Not significant TOPBP1 Not significant **TOPORS** Not significant TOR1AIP1 Not significant TOR1AIP2 Not significant TOR1B Not significant TOR2A Not significant TOX Not significant TOX2 Not significant TOX4 Not significant **TP53** Not significant TP53BP1 Not significant

TP53BP2 Not significant TP53I13 Not significant TPCN1 Not significant TPD52 Not significant TPD52L2 Not significant TPM1 Not significant TPM3 Lymph late up TPM4 Not significant TPP2 Mono late down **TPR** Mono early down

Not significant

TPRG1L

TPRKB
TPRN
Not significant
Not significant
Not significant
TPST2
Not significant
TPT1
B/T early up
TPX2
Not significant
TRA2A
Mono late down
TRA2B
NK mid up

TRABD Not significant **TRADD** Not significant TRAF1 Not significant TRAF2 Not significant TRAF3 Not significant TRAF3IP1 Not significant TRAF3IP2 Not significant TRAF3IP3 Not significant TRAF5 Not significant Not significant TRAF7 TRAFD1 Not significant TRAK1 Mono late down TRAM1 B/T early up TRANK1 Global up

TRAP1 Not significant TRAPPC1 Not significant TRAPPC10 Not significant TRAPPC11 Not significant TRAPPC12 Not significant TRAPPC13 Not significant TRAPPC3 Not significant TRAPPC4 Not significant TRAPPC6A Not significant TRAPPC8 Not significant TRAPPC9 Not significant TRAT1 Not significant TREML2 Global up

TRERF1 Not significant TRIAP1 Not significant TRIB1 Mono early up TRIB2 Lymph late up TRIM13 Not significant Not significant TRIM14 TRIM21 Not significant TRIM22 Global up

TRIM24 Not significant
TRIM25 Global up
TRIM26 Not significant

TRIM27	Not significant
TRIM28	Not significant
TRIM32	Not significant
TRIM33	Not significant
TRIM37	Not significant
TRIM38	Global up
TRIM4	Not significant
TRIM41	Not significant
TRIM44	Not significant
TRIM45	Not significant
TRIM5	Global up
TRIM52	Not significant
TRIM56	Not significant
TRIM8	Not significant
TRIOBP	Not significant
TRIP11	Not significant
TRIP12	Global down
TRIP4	Not significant
TRIP6	Not significant
TRIR	Global late down
TRIT1	Not significant
TRMO	Not significant
TRMT1	Not significant
TRMT10B	Not significant
TRMT10C	Not significant
TRMT11	Not significant
TRMT112	Not significant
TRMT13	Not significant
TRMT1L	Not significant
TRMT2A	Not significant
TRMT6	Not significant
TRMT61B	Not significant
TRMU	Not significant
TRNAU1AP	Not significant
TRNT1	Not significant
TROVE2	Not significant
TRPC4AP	Not significant
TRPM7	Not significant
TRPS1	Not significant
TRPT1	Not significant
TRPV2	Not significant
TRRAP	Not significant
TRUB2	Not significant
TSC2	Not significant
TSC22D1	Not significant

TSC22D3	Global late down
TSC22D4	Not significant
TSEN15	Not significant
TSEN2	Not significant
TSEN34	Not significant
TSEN54	Not significant
TSG101	Not significant
TSGA10	Not significant
TSHZ1	Not significant
TSHZ2	Not significant
TSN	Not significant
TSNAX	Not significant
TSPAN14	Not significant
TSPAN17	Not significant
TSPAN2	Not significant
TSPAN3	Mono early up
TSPAN31	Not significant
TSPAN32	Not significant
TSPAN5	Not significant
TSPO	Mono early up
TSPYL2	Mono early down
TSPYL4	Not significant
TSR1	Not significant
TSR2	Not significant
TSSC4	Not significant
TSTA3	Not significant
TSTD2	Not significant
TTBK2	Not significant
TTC1	Not significant
TTC12	Not significant
TTC13	Not significant
TTC17	Mono early down
TTC19	Not significant
TTC21B	Not significant
TTC27	Not significant
TTC3	Global late down
TTC31	Not significant
TTC37	Not significant
TTC39C	Not significant
TTC5	Not significant
TTC7A	Not significant
TTC9C	Not significant
TTF1	Not significant
TTF2	Not significant
TTI1	Not significant

TTI2 Not significant TTLL12 Not significant TTLL5 Not significant Global down TUBA1A TUBA1B NK mid up TUBA1C Mono late up TUBA4A B/T early up **TUBB** Not significant TUBB2B Not significant B/T early up TUBB4B TUBGCP2 Not significant TUBGCP3 Not significant TUBGCP4 Not significant **TUBGCP5** Not significant TUBGCP6 Not significant TUFM Not significant TULP4 Not significant TUT1 Not significant TVP23B Not significant Not significant TWF1 TWF2 Global down **TWISTNB** Not significant **TXK** Not significant **TXLNA** Not significant **TXLNG** Not significant TXN Mono early up TXNDC11 Not significant TXNDC15 Not significant Not significant TXNDC9 **TXNIP** Mono early down Not significant TXNL1 TXNL4A Not significant TXNL4B Not significant TXNRD1 Mono early up TYK2 Not significant TYW1 Not significant TYW3 Not significant TYW5 Not significant **U2SURP** Not significant Not significant UAP1 UBA1 Not significant UBA2 Not significant Not significant UBA3 UBA5 Not significant UBA52 Global late down

UBA6 UBA7 UBAC1 UBAC2 UBALD2 UBAP1 UBAP2 UBAP2 UBAP2L UBASH3A UBASH3B UBC UBE2A UBE2B UBE2D1 UBE2D2 UBE2D3 UBE2D3 UBE2D4 UBE2G2 UBE2J1 UBE2J2 UBE2J1 UBE2J2 UBE2J1 UBE2J2 UBE2J1 UBE2J2 UBE2J1 UBE2J2 UBE2L6 UBE2L6 UBE2N UBE2C0 U	Not significant Not significant Not significant Mono late up Not significant Not significant Not significant Not significant Not significant Not significant B/T early up Not significant
UBL4A	Not significant
UBN1	B down
UBN2	Not significant
UBOX5	Not significant
UBP1	Not significant
UBQLN2	Not significant

UBR1 Not significant UBR2 Not significant UBR3 Not significant Not significant UBR4 UBR5 Mono early down UBR7 Not significant **UBTF** Global down UBXN1 Mono early down **UBXN2A** Not significant Not significant **UBXN2B UBXN4** Not significant Not significant **UBXN6 UBXN7** Not significant UCHL3 Not significant UCHL5 Not significant UCKL1 Not significant UCP2 Not significant **UEVLD** Not significant UFC1 Not significant UFD1 Not significant UFL1 Not significant UFSP2 Not significant **UGCG** Not significant **UGDH** Not significant UGGT1 Not significant UGP2 Mono early up Not significant UHMK1 UHRF1BP1L Not significant Not significant UHRF2 UIMC1 Not significant Mono late down ULK2 ULK3 Not significant UMAD1 Not significant **UMPS** Not significant **UNC119** Not significant UNC13D Not significant UNC45A Not significant UNC50 Not significant UNC93B1 Not significant Not significant UPF1 UPF2 Not significant UPF3A Not significant Not significant UPF3B UPP1 Not significant UQCC1 Not significant

UQCC3 UQCRB UQCRC1	Not significant Not significant Not significant
UQCRC2	Not significant
UQCRH	Not significant
URB1	Not significant
URB2	Not significant
URGCP	Not significant
URI1	Not significant
UROD	Not significant
UROS	Not significant
USE1	Not significant
USF2	Not significant
USH1C	Not significant
USO1	Not significant
USP1	Not significant
USP11	Not significant
USP14	Not significant
USP15	B/T early up
USP16	Not significant
USP19	Not significant
USP20	Not significant
USP21	Not significant
USP22	Not significant
USP24	Not significant
USP25	Global up
USP3	Mono late down
USP32	Not significant
USP33	Not significant
USP34	Not significant
USP36	Mono late down
USP37	Not significant
USP38	Not significant
USP39	Not significant
USP4	Not significant
USP40	Not significant
USP44	Not significant
USP45	Not significant
USP47	Not significant
USP48	B down
USP5	Not significant
USP53	Not significant
USP6NL	Not significant
USP8	Mono early down
USP9X	Not significant

USP9Y Not significant USPL1 Not significant UTP11 Not significant Not significant UTP14A UTP15 Not significant UTP18 Not significant UTP20 Not significant UTP23 Not significant UTP3 Not significant Not significant UTP4 UTP6 Not significant UTY Not significant **UVRAG** B/T early up UXS1 Not significant VAC14 Not significant Not significant VAMP1 Not significant VAMP2 VAMP3 Not significant VAMP4 Not significant VAMP5 Global up VAMP7 Not significant VAMP8 Mono late down

VASP B down

Not significant

Not significant Not significant

Not significant

VAPB

VARS

VARS2

VGLL4

VAT1 Mono late up VAV1 Not significant VAV3 Not significant VBP1 Not significant **VCAN** Mono early up **VCL** Mono late down **VCP** Not significant VCPIP1 Not significant VDAC1 Not significant VDAC2 Not significant VDAC3 Not significant **VEGFB** Not significant VEZF1 NK mid up **VEZT** Not significant

VIM B down

VIPAS39 Not significant
VIRMA Not significant
VMA21 Not significant

VOPP1	NK mid up
VPS11	Not significant
VPS13A	Not significant
VPS13B	Mono early down
VPS13D	Not significant
VPS16	Not significant
VPS18	Not significant
VPS25	Not significant
VPS26A	Not significant
VPS26B	Not significant
VPS26C	Not significant
VPS28	Not significant
VPS29	Not significant
VPS33A	Not significant
VPS33B	Not significant
VPS35	Not significant
VPS36	Mono early down
VPS37A	Not significant
VPS37B	Not significant
VPS39	Not significant
VPS41	Not significant
VPS45	Not significant
VPS4A	Not significant
VPS4B	Not significant
VPS50	Not significant
VPS51	Not significant
VPS52	Not significant
VPS53	Not significant
VPS54	Not significant
VPS72	Not significant
VPS8	Not significant
VRK1	Not significant
VRK2	Not significant
VRK3	Not significant
VSIG1	Not significant
VTA1	Not significant
VTI1B	Not significant
VWA3A	Not significant
VWA8	Not significant
WAC	Not significant
WAPL	Mono early down
WARS	Global up
WARS2	Not significant
WAS	Not significant
WASF2	Mono early down

WASHC3	Not significant
WASHC4	Not significant
WASHC5	Not significant
WASL	Not significant
WBP1	Not significant
WBP11	Not significant
WBP1L	Not significant
	_
WBP2	Not significant
WBP4	Not significant
WDFY1	Not significant
WDFY2	Not significant
WDPCP	Not significant
WDR1	Mono late up
WDR11	Not significant
WDR13	Not significant
WDR20	Not significant
WDR24	Not significant
WDR25	Not significant
WDR26	Not significant
WDR3	Mono early down
WDR33	•
	Not significant
WDR34	Not significant
WDR36	Not significant
WDR37	Not significant
WDR4	Not significant
WDR41	Not significant
WDR43	Not significant
WDR44	Not significant
WDR45	Not significant
WDR45B	Not significant
WDR46	Not significant
WDR47	Not significant
WDR48	Not significant
WDR5	Not significant
WDR54	Not significant
WDR59	Not significant
	_
WDR60	Not significant
WDR61	Not significant
WDR7	Not significant
WDR70	Not significant
WDR74	Not significant
WDR75	Not significant
WDR76	Not significant
WDR82	Not significant
WDR83	Not significant

WDR830S Mono late down WDSUB1 Not significant WDTC1 Not significant Not significant WFIKKN1 **WHAMM** Not significant WIPF1 B/T early up WIPI2 Not significant WNK1 Global down WRAP53 Not significant WRAP73 Not significant **WRB** Not significant **WRN** Not significant WRNIP1 Not significant WSB1 Not significant **WTAP** Not significant WWC3 Not significant Not significant XAB2 XAF1 Global up XBP1 Not significant **XIAP** Not significant Not significant **XPA XPC** Not significant XPNPEP1 Not significant XPO1 Not significant XPO4 Not significant XPO₅ Not significant **XPO6** Not significant XPO7 Not significant **XPOT** Not significant XRCC1 Not significant XRCC5 Mono late up XRCC6 Not significant XRN1 Global up XRN2 Lymph late up XXYLT1 Not significant XYLT1 Not significant XYLT2 Not significant YAE1D1 Not significant YAF2 Not significant YARS Mono late up YARS2 Not significant YIF1A Not significant Not significant YIPF3 YIPF5 Not significant YJEFN3 Not significant

YKT6	Not cianificant
	Not significant
YLPM1	Not significant
YME1L1	Not significant
YPEL1	Not significant
YPEL2	Mono late down
YPEL3	Not significant
YPEL4	Not significant
YPEL5	B/T early up
YTHDF1	Not significant
YTHDF2	Not significant
YTHDF3	Not significant
YWHAB	Global late down
YWHAE	Mono late up
YWHAG	Mono late up
YWHAH	Not significant
YWHAQ	Not significant
YWHAZ	B/T early up
YY1	Not significant
YY1AP1	Not significant
ZADH2	Not significant
ZAP70	Global late down
ZBED1	Not significant
ZBED5	Not significant
ZBTB1	Not significant
ZBTB10	Not significant
ZBTB11	Not significant
ZBTB14	Not significant
ZBTB16	Not significant
ZBTB17	Not significant
ZBTB18	Not significant
ZBTB2	Not significant
ZBTB20	Not significant
ZBTB21	Not significant
ZBTB24	Not significant
ZBTB33	Not significant
ZBTB38	Global late down
ZBTB39	Not significant
ZBTB40	Not significant
ZBTB43	Mono late down
ZBTB44	Not significant
ZBTB48	Not significant
ZBTB49	Not significant
ZBTB5	Not significant
ZBTB7B	Not significant
ZBTB8OS	
ZD100U3	Not significant

ZC2HC1A ZC3H11A ZC3H13 ZC3H14 ZC3H15 ZC3H18 ZC3H4 ZC3H6 ZC3H7A ZC3H7B ZC3HAV1 ZCCHC10 ZCCHC14 ZCCHC17 ZCCHC2 ZCHC8 ZCCHC9 ZCRB1 ZDBF2 ZDHHC12 ZDHHC13 ZDHHC16 ZDHHC17 ZDHHC18 ZDHHC18 ZDHHC6 ZDHHC7 ZEB1 ZEB2 ZFAND2B ZFAND3 ZFAND4 ZFP36 ZFP36 ZFP36 ZFP36 ZFP37 ZFP62 ZFP69 ZFP82 ZFP90	Not significant Lymph late up Not significant
ZFP69 ZFP82	Not significant Not significant

ZFY	Not significant
ZFYVE16	Mono late down
ZFYVE19	Not significant
ZFYVE21	Not significant
ZFYVE26	Not significant
ZFYVE27	Not significant
ZFYVE9	Not significant
ZGPAT	Not significant
ZHX1	Not significant
ZHX2	Not significant
ZIK1	Not significant
ZKSCAN1	Not significant
ZKSCAN4	Not significant
ZKSCAN5	Not significant
ZMAT1	Not significant
ZMAT2	Not significant
ZMAT3	Not significant
ZMPSTE24	Not significant
ZMYM1	Not significant
ZMYM2	Not significant
ZMYM3	Not significant
ZMYM4	Not significant
ZMYM5	Not significant
ZMYM6	Not significant
ZMYND11	Not significant
ZMYND19	Not significant
ZMYND8	Not significant
ZNF100	Not significant
ZNF101	Not significant
ZNF106	Mono early down
ZNF107	Global up
ZNF114	Not significant
ZNF12	Not significant
ZNF121	Not significant
ZNF124	Not significant
ZNF131	Not significant
ZNF134	Not significant
ZNF14	Not significant
ZNF140	Not significant
ZNF141	Not significant
ZNF142	Not significant
ZNF143	Not significant
ZNF146	Not significant
ZNF148	Not significant
ZNF154	Not significant

ZNF155	Not significant
ZNF16	Not significant
ZNF160	Not significant
ZNF169	Not significant
ZNF177	Not significant
ZNF18	Not significant
ZNF180	Not significant
ZNF181	Not significant
ZNF182	Not significant
ZNF184	Not significant
ZNF195	Not significant
ZNF200	Not significant
ZNF202	Not significant
ZNF207	Not significant
ZNF211	Not significant
ZNF212	Not significant
ZNF217	Not significant
ZNF22	Not significant
ZNF224	Not significant
ZNF226	Not significant
ZNF23	Not significant
ZNF232	Not significant
ZNF236	Not significant
ZNF239	Not significant
ZNF24	Not significant
ZNF248	Not significant
ZNF250	Not significant
ZNF256	Not significant
ZNF26	Not significant
ZNF260	Not significant
ZNF263	Not significant
ZNF267	B/T early up
ZNF268	Not significant
ZNF273	Not significant
ZNF274	Not significant
ZNF275	Not significant
ZNF276	Not significant
ZNF277	Not significant
ZNF280C	Not significant
ZNF280D	Not significant
ZNF281	Not significant
ZNF282	Not significant
ZNF287	Not significant
ZNF292	Global down
ZNF3	Not significant

ZNF300	Not significant
ZNF304	Not significant
ZNF317	Not significant
ZNF318	Mono late down
ZNF319	Not significant
ZNF32	Not significant
ZNF326	Mono early down
ZNF330	Not significant
ZNF331	Not significant
ZNF335	Not significant
ZNF33A	Not significant
ZNF33B	Not significant
ZNF34	Not significant
ZNF350	Not significant
ZNF354A	Not significant
ZNF354B	Not significant
ZNF367	Not significant
ZNF384	Not significant
ZNF394	Not significant
ZNF395	Not significant
ZNF407	Not significant
ZNF408	Not significant
ZNF41	Not significant
ZNF410	Not significant
ZNF414	Not significant
ZNF420	Not significant
ZNF426	Not significant
ZNF430	Not significant
ZNF431	Not significant
ZNF44	Not significant
ZNF441	Not significant
ZNF444	Not significant
ZNF445	Not significant
ZNF446	Not significant
ZNF45	Not significant
ZNF451	Not significant
ZNF460	Not significant
ZNF462	Not significant
ZNF468	Not significant
ZNF471	Not significant
ZNF473	Not significant
ZNF48	Not significant
ZNF480	Not significant
ZNF493	Not significant
ZNF506	Not significant

ZNF507	Not significant
ZNF510	Not significant
ZNF511	Not significant
ZNF512	Not significant
ZNF512B	Not significant
ZNF518A	Not significant
ZNF518B	Not significant
ZNF524	Not significant
ZNF528	Not significant
ZNF549	Not significant
ZNF555	Not significant
ZNF559	Not significant
ZNF565	•
	Not significant
ZNF568	Not significant
ZNF569	Not significant
ZNF571	Not significant
ZNF574	Not significant
ZNF581	Not significant
ZNF585A	Not significant
ZNF586	Not significant
ZNF592	Not significant
ZNF595	Not significant
ZNF597	Not significant
ZNF605	Not significant
ZNF609	Not significant
ZNF614	Not significant
ZNF615	Not significant
ZNF616	Not significant
ZNF618	Not significant
ZNF623	Not significant
ZNF626	Not significant
ZNF638	Mono early down
ZNF639	Not significant
ZNF644	Mono early down
ZNF646	Not significant
ZNF649	Not significant
ZNF652	Not significant
ZNF654	Not significant
ZNF664	-
ZNF668	Not significant
	Not significant
ZNF671	Not significant
ZNF672	Not significant
ZNF680	Not significant
ZNF682	Not significant
ZNF684	Not significant

ZNF687	Not significant
ZNF688	Not significant
ZNF689	Not significant
ZNF692	Not significant
ZNF7	Not significant
ZNF700	Not significant
ZNF703	Mono late down
ZNF706	Not significant
ZNF707	Not significant
ZNF708	Not significant
ZNF710	Not significant
ZNF711	Not significant
ZNF738	Not significant
ZNF740	-
	Not significant
ZNF746	Not significant
ZNF75A	Not significant
ZNF75D	Not significant
ZNF766	Not significant
ZNF770	Not significant
ZNF777	Not significant
ZNF780B	Not significant
ZNF782	Not significant
ZNF783	Not significant
ZNF791	Not significant
ZNF8	Not significant
ZNF800	Not significant
ZNF805	Not significant
ZNF827	Not significant
ZNF83	Not significant
ZNF830	Not significant
ZNF831	Not significant
ZNF836	Not significant
ZNF839	Not significant
ZNF84	Not significant
ZNF845	Not significant
ZNF846	Not significant
ZNF85	Not significant
ZNF91	Not significant
ZNF92	B/T early up
ZNF93	Not significant
ZNFX1	Global up
ZNHIT1	Not significant
ZNHIT2	Not significant
ZNHIT6	Not significant
ZNRD1	Not significant

ZRANB1 Not significant ZRANB2 Not significant ZRANB3 Not significant Not significant ZSCAN21 ZSCAN25 Not significant ZSCAN26 Not significant ZSCAN29 Not significant ZSCAN32 Not significant ZSWIM6 Not significant ZSWIM7 Not significant ZSWIM8 Not significant **ZUFSP** Not significant **ZW10** Not significant **ZWILCH** Not significant **ZXDC** Not significant Not significant ZYX Not significant ZZEF1 ABCA1 Not significant ABCF3 Not significant ACOT8 Not significant Not significant **ALAD** AMN1 Not significant **ANKAR** Not significant AP4M1 Not significant APH1B Not significant **APOM** Not significant **ARSA** Not significant B4GALT5 Not significant **BANP** Not significant BAX Not significant BCL2L1 Not significant BTBD10 Not significant C7H14orf119 Not significant C7orf25 Not significant CATSPER2 Not significant CCDC159 Not significant CD1C B down

CD86

Not significant CETN3 Not significant Not significant CFAP53 CHN1 Not significant CKAP2 Not significant Not significant CLCN7 CPT1B Not significant CXHXorf21 Mono late up

CYB5RL Not significant DCTN3 Not significant Not significant DENND1A Not significant DHRS11 DTD2 Not significant EFCAB11 Not significant ENSMMUG00000000703 Not significant ENSMMUG00000000717 Not significant ENSMMUG00000002301 Not significant ENSMMUG00000010764 Not significant ENSMMUG00000015475 Not significant ENSMMUG00000017209 Not significant ENSMMUG00000018530 Not significant ENSMMUG00000023311 Not significant ENSMMUG00000037794 Not significant ENSMMUG00000038976 Not significant Not significant ENSMMUG00000040669 ENSMMUG00000041972 Not significant ENSMMUG00000042729 Not significant ENSMMUG00000042885 Not significant ENSMMUG00000044661 Not significant ENSMMUG00000045559 Not significant ENSMMUG00000048099 Not significant EPAS1 Not significant EPB41L2 Not significant FAM241B Not significant FCF1 Not significant GALK2 Not significant Not significant **GAN** GFPT1 Not significant Not significant GID8 GIN1 Not significant GNA11 Not significant **GORAB** Not significant **GRAMD2B** Not significant **GSS** Not significant HDAC8 Not significant HRASLS2 Lymph late up **INPP5B** Not significant KIF5C Not significant KLHL20 Not significant LIN37 Not significant LMO2 Mono late down LMO7 Not significant LRIG2 Not significant

MBLAC1	Not significant
MED7	Not significant
MINPP1	Not significant
MPND	Not significant
MRNIP	Not significant
MYEF2	_
	Not significant
MYL9	Not significant
NME7	Not significant
NMNAT3	Not significant
NPRL3	Not significant
OCEL1	Not significant
OPRL1	Not significant
PARVA	Not significant
PATL2	Not significant
PDE7B	Not significant
PEX6	Not significant
PHKA1	Not significant
PLA2G15	Not significant
PLD2	Not significant
PLEKHM3	_
	Not significant
PLK4	Not significant
PLSCR1	Mono late up
PM20D1	Not significant
PRELID1	Not significant
PRMT5	Not significant
RAB9B	Not significant
RABEPK	Not significant
RAD18	Not significant
REC8	Not significant
RGS18	Mono early up
RNF5	Not significant
SBF2	Not significant
SCRN3	Not significant
SIDT1	_
	Not significant
SLC18B1	Not significant
SLC25A19	Not significant
SLC38A6	Not significant
SLC4A2	Not significant
SLC9B2	Not significant
SNX8	Not significant
STAMBP	Not significant
STIL	Not significant
STRADA	Not significant
STRN4	Not significant
SULT1A3	Not significant
· - · · -	2 - 2/9

CVALLA	
SYNM	Not significant
THAP4	Not significant
TIFA	Not significant
TIMM23	Not significant
TPGS2	Not significant
TRAPPC6B	Not significant
TRIB3	Not significant
TTYH3	Not significant
UNG	Not significant
USP28	Not significant
USP51	Not significant
VPS35L	Not significant
WDHD1	Not significant
YEATS4	Not significant
	_
ZDHHC4	Not significant
ZNF251	Not significant
ZNF382	Not significant
ZNF429	Not significant
ZNF551	Not significant
ZNF567	Not significant
ZNF577	Not significant
ZNF611	Not significant
ZNF681	Not significant
ZNF841	Not significant
ZNF862	Not significant
ACP5	Not significant
ACYP1	Not significant
AUH	Not significant
B4GAT1	Not significant
C14orf93	Not significant
C16orf70	Not significant
C19orf44	Not significant
C2H3orf18	Not significant
CCDC171	Not significant
CDH26	Not significant
CHCHD6	Not significant
CSKMT	Not significant
CSMD3	Not significant
DHDH	_
EEFSEC	Not significant
	Not significant
ENSMMUG00000011256	Not significant
ENSMMUG00000011937	Not significant
ENSMMUG00000012166	Not significant
ENSMMUG00000021239	Not significant
ENSMMUG00000038836	Not significant

ENSMMUG00000039188 Not significant ENSMMUG00000039966 Not significant ENSMMUG00000044726 Not significant Not significant ENSMMUG00000047376 ENSMMUG00000049195 Not significant ENSMMUG00000049206 Not significant EYA3 Not significant FAM83G Not significant **GAL** Not significant **GNPDA1** Not significant **GPATCH2L** Not significant Not significant **HEMGN HLA-DQA1** Mono late down HYLS1 Not significant IFT27 Not significant KNDC1 Not significant Not significant KRT222 **LHPP** Not significant LIMK1 Not significant LYN Mono late down Mono late down MAMU-DQA1 **MCAT** Not significant Not significant MCM₅ MCM8 Not significant MLH1 Not significant **MNDA** Mono late down MPI Not significant Not significant MRI1 MRPL19 Not significant MVB12B Not significant Not significant **MYO15B** NOD1 Not significant PARP12 Not significant **PLEK** Mono early up Not significant **POLQ** PRAG1 Not significant PYCR1 Not significant RAB34 Not significant RAMP1 Not significant Not significant RF00012 RF00283 Not significant **RHOU** Not significant Not significant SHMT1 Not significant SLC25A12 SLC25A45 Not significant

SLC39A14	Not significant
SLC5A6	Not significant
SNUPN	Not significant
	_
SP140	Lymph late up
SUSD4	Not significant
SYCP2	Not significant
TCTN3	Not significant
TMCO4	Not significant
TMIGD2	Not significant
	_
WDR18	Not significant
ZBTB34	Not significant
ZC3H8	Not significant
ZNF174	Not significant
ZNF197	Not significant
ZNF225	Not significant
ZNF337	Not significant
ZNF347	Not significant
ZNF484	-
-	Not significant
ZNF485	Not significant
ZNF674	Not significant
ZNF789	Not significant
ZNF879	Not significant
AASS	Not significant
ABAT	Not significant
ABCB6	Not significant
ABHD4	Not significant
ABHD5	Not significant
	_
ABI3	Not significant
ACBD5	Not significant
ACOT11	Not significant
ACSS1	Not significant
ACTN3	Not significant
ADAMTSL5	Not significant
ADCK1	Not significant
ADGRG1	Global late down
ADRB2	Not significant
AFAP1L2	Lymph late up
AGFG2	Not significant
AKAP13	Not significant
ALDH4A1	Not significant
ALS2	Not significant
ANKRD50	Not significant
AOAH	Mono late down
AP2A1	Not significant
APOBEC3A	Mono early up
AI OBLOJA	Mono Earry up

ARHGAP11A Not significant ARHGAP32 Not significant ARL6 Not significant Not significant ARRB1 **ARSB** Not significant **ASPM** Not significant ATP1A3 Not significant BLZF1 Not significant **BORA** Not significant **BORCS5** Not significant BRCA2 Not significant C11H12orf4 Not significant C12orf40 Not significant C12orf75 Not significant C2orf42 Not significant Not significant C4H6orf136 Not significant CALHM2 Not significant CAMK1D CAMTA2 Not significant Not significant CASS4 CAVIN2 Not significant CCDC146 Not significant CCL5 Not significant CCNA2 Not significant CCNB1IP1 Not significant CCNIL Not significant CCR3 Not significant CCR5 Not significant CD300A Mono early up CDC25A Not significant CDC34 Not significant CDK1 Not significant CDKL5 Not significant CDKN2C Not significant **CENPM** Not significant **CENPN** Not significant **CENPU** Not significant CERS2 Not significant CHAF1A Not significant Not significant CHML CHST6 Not significant CLEC₁₂A Global up CLIC4 Not significant Not significant **CLNK**

Not significant

CMA1

0011111	
COL11A1	Not significant
COMTD1	Not significant
COPG2	Not significant
COX17	Not significant
CPEB2	Not significant
CPTP	Not significant
CRIM1	Not significant
CST7	Not significant
CX3CR1	Not significant
CXCR6	Not significant
CYBB	Mono late up
CYTH4	Not significant
DCLRE1A	Not significant
DDAH2	Not significant
DMXL2	Not significant
DNAH7	Not significant
DNAJC3	Not significant
DOCK5	Mono late down
DPY19L1	Not significant
DVL3	_
	Not significant
EBPL FECARA	Not significant
EFCAB7	Not significant
ELP6	Not significant
EML2	Not significant
ENSMMUG00000002922	Not significant
ENSMMUG00000004015	Mono early up
ENSMMUG00000008224	Not significant
ENSMMUG00000008227	Mono late down
ENSMMUG00000013289	Mono late down
ENSMMUG00000013779	Not significant
ENSMMUG00000014003	Not significant
ENSMMUG00000014402	Mono late up
ENSMMUG00000015285	Not significant
ENSMMUG00000018860	Not significant
ENSMMUG00000020008	Not significant
ENSMMUG00000020102	Not significant
ENSMMUG00000020856	Not significant
ENSMMUG00000031202	Not significant
ENSMMUG0000037542	Not significant
ENSMMUG0000037901	Not significant
ENSMMUG0000038113	Not significant
ENSMMUG00000038355	Not significant
ENSMMUG00000038533	Not significant
ENSMMUG00000038333	Not significant
ENSMMUG00000039380	<u> </u>
FIA241410G000000033100	Not significant

ENSMMUG00000040625	Not significant
ENSMMUG00000040626	Not significant
ENSMMUG00000040642	Not significant
ENSMMUG0000041183	Not significant
ENSMMUG0000041473	Not significant
ENSMMUG00000041473	_
	Not significant
ENSMMUG00000041974	Not significant
ENSMMUG00000042057	Not significant
ENSMMUG00000042343	Mono early up
ENSMMUG00000042961	Not significant
ENSMMUG00000043350	Not significant
ENSMMUG00000043712	Not significant
ENSMMUG00000044591	Not significant
ENSMMUG00000045612	Not significant
ENSMMUG00000046263	Not significant
ENSMMUG00000047311	Not significant
ENSMMUG0000048107	Not significant
ENTPD1	Mono late down
EPB41L5	Not significant
EPN2	Not significant
ERCC6L	Not significant
EVI5	
	Mono early down
EXT1	Not significant
F2R	Not significant
FAM13A	Not significant
FAM184B	Not significant
FAM214B	Not significant
FAM49A	Mono late down
FASLG	Not significant
FBXL19	Not significant
FBXO30	Not significant
FCGR3	Mono late down
FGFBP2	Not significant
FGR	Not significant
FHL2	Not significant
FOCAD	Not significant
FRY	Not significant
GALNT3	Not significant
GAS7	Not significant
GFI1	Not significant
GK	Not significant
GK5	
	Not significant
GMPPB CNCT2	Not significant
GNGT2	Not significant
GOT1	Not significant

GPR141 Not significant GPR35 Not significant GPR55 Not significant Not significant GPT2 GTDC1 Not significant GTPBP2 Not significant **GZMA** Not significant **GZMM** Not significant HEG1 Not significant Not significant HIP1 **HJURP** Not significant **HLA-DQB1** B/T early up **HLCS** Not significant HUNK Not significant HUS1 Not significant IKZF2 Not significant Not significant IL12RB2 IL18RAP Not significant IL7 Not significant IMPDH1 Not significant **INCENP** Not significant INPP1 Not significant **IPPK** Not significant IRF8 Not significant **ITGAM** Mono late up **ITGAV** Not significant **ITGAX** B down

IPT2 Not significant KCNAB3 Not significant KCNK5 Not significant **KIAA0141** Not significant KIF11 Not significant KIF15 Not significant KIF21A Not significant KIF23 Not significant KIF26B Not significant KIFC1 Not significant KLHDC3 Not significant KLRC1 Not significant Not significant KLRD1 KLRF1 Not significant KLRG1 Not significant Not significant KRBA2 LCA5 Not significant

Not significant

LIN7C

LITAF Mono late up LRRC46 Not significant Not significant LRRC56 Not significant LY6E LYRM7 Not significant MAGT1 Not significant MAMLD1 Not significant MAMU-DMA Mono late down MAMU-DMB Mono late down MAMU-DRB1 Mono late down MAST3 Not significant MCF2 Not significant MCM₂ Not significant MCRIP1 Not significant MED12L Not significant Not significant MED9 Not significant MEI1 Not significant **METRNL** MFSD4A Not significant MGST2 Not significant Not significant MICAL2 **MICALCL** Not significant MOB3A Not significant MON1A Not significant MPC1 Not significant MYO1C Not significant MYO1E Not significant **MYRF** Not significant Not significant **NCAPG** NCKAP5L Not significant Lymph late up NCR1 NCR3 Not significant NDE1 Not significant NDUFA5 Not significant NDUFAF6 Not significant Not significant NEU1 NFE2L3 Not significant **NFKBID** Not significant NHSL2 Not significant Not significant NKG7 NLRC3 Not significant NR1H3 Not significant Not significant **NSMAF** Not significant NTN4 NTNG2 Not significant

NUF2 Not significant NUP37 Not significant NUSAP1 Not significant Not significant **OBSCN** OGFRL1 Mono late down OSR₂ Not significant PCDH1 Not significant PCGF1 Not significant PCNX3 Not significant **PERP** Not significant PIK3R2 Not significant PIP5K1C Not significant **PITPNA** Not significant PKNOX1 Not significant PLCB1 Mono late down PLCG2 Not significant Not significant PLCXD2 PLK1 Not significant **PLTP** Not significant PMAIP1 Not significant Not significant **POLE** POLR1A Not significant Not significant POLR3K POMT2 Not significant PPP2R2B Not significant PQLC2 Not significant **PRKCA** Not significant PRSS57 Not significant Not significant PSEN2 **PTGDR** Not significant Not significant PTK7 **PTMS** Not significant **PVRIG** Not significant RALGPS1 Not significant RAVER1 Not significant RBBP4 Not significant **RETSAT** Not significant RHBDF2 Mono late up RHOBTB1 Not significant Not significant RHOBTB3 **RHOF** Not significant RIN3 Not significant Not significant RPA2 Not significant RTP5 S1PR5 Not significant

SAMD3 Not significant SCAF1 Not significant SEC24C Not significant Mono late down **SELENOP** SEMA4F Not significant SERPINB6 Not significant SERPINI1 Not significant SFR1 Not significant **SGCB** Not significant SH3TC1 Not significant SIGLEC5 Not significant SKAP2 Not significant SLAMF6 Not significant SLAMF7 Not significant SLC11A1 Not significant Not significant SLC12A4 Not significant SLC1A4 SLC31A2 Not significant SLC43A3 Mono late up SLC4A10 Not significant Not significant SLC6A6 SLCO4C1 Not significant SMARCD2 Not significant SMIM29 Not significant SNRNP40 Not significant SNX10 Mono late up SOAT1 Not significant SPINK2 Not significant SPRY2 Not significant SRGAP2 Not significant Not significant **SRM** SSH1 Not significant SSH₃ Not significant STXBP4 Not significant **SYK** B down

SYT11 Not significant TAF6L Not significant TBC1D20 Not significant TBKBP1 Not significant **TEC** Not significant **TFEB** Not significant THEM4 Not significant Not significant THY1 TIMM21 Not significant TLN2 Not significant TLR6 Not significant TM7SF3 Not significant **TMEM104** Not significant Not significant TMEM229B TMEM68 Not significant TNFSF14 Not significant TPCN2 Not significant TRAV6 Not significant TSHZ3 Not significant TSPAN33 Mono late down TTLL4 Not significant TUBB1 Not significant **TYROBP** Global late down U2AF2 Not significant UBALD1 Not significant USP54 Not significant Not significant VANGL1 Not significant VWA5A WDR63 NK mid up WEE1 Not significant ZBED4 Not significant ZBP1 Not significant ZBTB22 Not significant ZBTB32 Not significant ZC3H10 Not significant **ZFAT** Not significant ZGRF1 Not significant ZMAT5 Not significant Not significant **ZNF438 ZNF449** Not significant Not significant **ZNF496 ZNF502** Not significant ZNF79 Not significant ABCB1 Not significant AKR1C1 Not significant Not significant APEX2 ARHGAP1 Not significant BANK1 Global up Clorf216 Not significant Not significant C22orf39 C8H8orf76 Not significant CARD6 Not significant CHPT1 Not significant Not significant CREB3 ENSMMUG0000001245 Not significant

EXOG Not significant FADS3 Not significant **GGCT** Not significant Not significant HAVCR2 **KIAA1217** Not significant MCM₁₀ Not significant METTL6 Not significant NRM Not significant OLFM1 Not significant **PALLD** Mono late down PIDD1 Not significant **PMPCA** Not significant RASSF2 Not significant **RNASEL** Not significant SDK2 Not significant SNTB1 Not significant Not significant TAMM41 Not significant TM6SF1 TRIM59 Not significant TXNDC16 Not significant **VEGFA** Lymph late up **ZNF432** Not significant ADAM19 Not significant ARHGEF39 Not significant ARL11 Not significant ATP5F1 Not significant Not significant **AURKA AURKB** Not significant BIRC5 Not significant BOLA1 Not significant Not significant BUB1 C9orf40 Not significant CAB39L Not significant CCDC126 Not significant CCDC150 Not significant Not significant CCNB2 CCNE1 Not significant **CCNF** Not significant CDC20 Not significant Not significant CDC6 CDCA2 Not significant CDCA7 Not significant Not significant CDKN3 CDPF1 Not significant **CENPW** Not significant

CEP55	Not significant
CHAF1B	Not significant
CHMP1A	Not significant
CHTF18	Not significant
CIT	Not significant
CLDN15	Not significant
CLSPN	Not significant
CTBP2	Mono late down
CYB5R1	Not significant
DDX11	Not significant
DHCR7	Not significant
DLGAP5	Not significant
DTL	Not significant
E2F1	Not significant
ENSMMUG0000001764	Mono early up
ENSMMUG0000001895	Not significant
ENSMMUG00000002722	Not significant
ENSMMUG00000003926	Not significant
ENSMMUG00000006011	Not significant
ENSMMUG00000006517	Not significant
ENSMMUG00000006814	Not significant
ENSMMUG00000009657	Not significant
ENSMMUG0000010333	Not significant
ENSMMUG00000013527	Not significant
ENSMMUG00000013925	Not significant
ENSMMUG00000014009	Not significant
ENSMMUG00000014717	Not significant
ENSMMUG00000017133	Not significant
ENSMMUG0000018296	Not significant
ENSMMUG00000020594	Not significant
ENSMMUG00000022587	Not significant
ENSMMUG00000029945	Not significant
ENSMMUG00000030465	Not significant
ENSMMUG00000030696	Not significant
ENSMMUG00000030901	Not significant
ENSMMUG00000031047	Not significant
ENSMMUG00000031343	Not significant
ENSMMUG00000031396	Not significant
ENSMMUG00000032194	Not significant
ENSMMUG00000032370	Not significant
ENSMMUG00000038094	Not significant
ENSMMUG00000038584	Not significant
ENSMMUG00000039415	Not significant
ENSMMUG00000040029	Not significant
ENSMMUG00000040105	Not significant

ENSMMUG00000040487	Not significant
ENSMMUG00000040849	Not significant
ENSMMUG00000041033	Not significant
ENSMMUG00000041283	Not significant
ENSMMUG00000041811	Not significant
ENSMMUG00000042994	Not significant
ENSMMUG00000043395	Not significant
ENSMMUG00000043635	Not significant
ENSMMUG00000044377	Not significant
ENSMMUG00000044960	Not significant
ENSMMUG00000046867	Not significant
ENSMMUG00000047507	Not significant
ENSMMUG00000047568	Not significant
ENSMMUG00000048391	Not significant
ERP29	Not significant
ETFDH	Not significant
EXO1	Not significant
EXOSC5	Not significant
FADS1	Not significant
FBXO6	Not significant
FEN1	Not significant
FES	Not significant
FOXM1	Not significant
GALM	Not significant
GEN1	Not significant
GNA15	Mono late up
GOT2	Not significant
GTF2H2	Not significant
GTSE1	Not significant
HAUS5	Not significant
HDGFL3	Not significant
HIST1H1B	Not significant
HIST1H2AH	Not significant
HK2	Not significant
HMMR	Not significant
IL23R	Not significant
ISYNA1	Not significant
KATNAL1	Not significant
KIF14	Not significant
KIF2C	Not significant
KIF4A	Not significant
KLRC3	Not significant
KNTC1	Not significant
LMO4	Not significant
LRR1	Not significant

LDDC42	Not significant
LRRC42	Not significant
MECR	Not significant
METTL2A	Not significant
MFN2	Not significant
MGME1	Not significant
MRPL2	Not significant
MRPL35	Not significant
MRPL42	Not significant
MTMR11	Not significant
MYBL2	Not significant
MZB1	Not significant
NAT6	Not significant
NCAPH	Not significant
NCDN	Not significant
NDOR1	Not significant
NLK	Not significant
NPHP4	Not significant
NQO2	Not significant
NUDT16	Mono late up
OTUD7B	Not significant
PCMT1	Not significant
PDCD2L	Not significant
PDLIM7	Not significant
PEX14	Not significant
PGAM1	Not significant
PHGDH	Not significant
POC1A	Not significant
POLR2F	Not significant
PRAM1	Not significant
PRC1	Not significant
PSAT1	Not significant
RAD51	Not significant
RAD51	-
RFC2	Not significant
	Not significant
RRM2	Not significant
RTL10	Not significant
SEC23A	Not significant
SH3GL1	Not significant
SHCBP1	Not significant
SLC25A10	Not significant
SLC25A11	Not significant
SLC29A1	Not significant
SPAG5	Not significant
TATDN3	Not significant
THOP1	Not significant

TIMM17B	Not significant
TK1	Not significant
TMEM177	Not significant
TSFM	Not significant
TSR3	Not significant
TTC23	Not significant
TXNDC17	Not significant
UBTD2	Not significant
UHRF1	Not significant
WFS1	Not significant
ZBED2	Not significant
ZNF253	Not significant
ZNF322	Not significant
A4GALT	Not significant
ABCA4	_
ABCC4	Not significant Not significant
ABCD2	Not significant
ADAM9	_
ADAMTS13	Not significant
	Not significant
ADARRI	Not significant
ADARB1	Not significant
ADAT2	Not significant
AEBP1	Not significant
AFMID	Not significant
AGBL2	Not significant
AIFM3	Not significant
ALKBH6	Not significant
ANK1	Not significant
ANKMY2	Not significant
ANXA4	Not significant
AREG	Not significant
ARHGAP24	Not significant
ARHGAP31	Not significant
ARID3A	Not significant
ARL10	Not significant
ARL4D	Not significant
ARL5B	Not significant
ATG16L2	Not significant
ATP6V0A1	Not significant
ATP8B1	Not significant
B4GALT2	Not significant
BASP1	Not significant
BCL7A	Not significant
BEND6	Not significant
BEND7	Not significant

BFAR Not significant BICDL2 Not significant BLK Not significant Not significant **BLNK BMF** Not significant BTBD3 Not significant CACNA1A Not significant CADM1 Not significant **CALY** Not significant CCDC125 Not significant CCDC187 Not significant CCDC191 Not significant CCDC28A Not significant CCDC32 Not significant CCDC80 Not significant CCSER1 Not significant Not significant CD180 B down

CD19 CD22 Not significant CD24 Not significant Not significant **CD40 CD72** Not significant CDCA7L Not significant CDH₂ Not significant CDH₂0 Not significant CDK14 Not significant CELF6 Not significant **CGN** Not significant Not significant CHST15 **CIITA** Not significant Not significant CLCF1 CLEC17A Not significant CLUAP1 Not significant CMTM8 Not significant CNR2 Not significant

Not significant COL8A2 CPPED1 Not significant CSF2RB Mono late up CSGALNACT1 Not significant Not significant CTNND1 CYB561A3 Not significant CYP27A1 Mono late down DAPK1 Mono late down DAPP1 Not significant DENND2A Not significant

Not significant
Not significant
_
Not significant
B/T early up
Not significant
_
Not significant
-
Not significant
Not significant
Not significant
Not significant

ENSMMUG00000038544 ENSMMUG00000039562 ENSMMUG00000039742 ENSMMUG00000041411 ENSMMUG00000041723 ENSMMUG00000041744 ENSMMUG00000041744 ENSMMUG00000042014 Not significant Not significant	ENSMMUG00000016682 ENSMMUG00000017111 ENSMMUG00000018611 ENSMMUG00000019087 ENSMMUG00000019253 ENSMMUG00000019689	Not significant Not significant Not significant Not significant Not significant Not significant
ENSMMUG00000038237 ENSMMUG00000038358 ENSMMUG00000038544 ENSMMUG00000039562 ENSMMUG00000039742 ENSMMUG00000041411 ENSMMUG00000041723 ENSMMUG00000041744 ENSMMUG00000042014 ENSMMUG00000042014 ENSMMUG00000042261 ENSMMUG00000042625 ENSMMUG00000043259 ENSMMUG00000043450 ENSMMUG00000043513 ENSMMUG00000043771 ENSMMUG00000044001 ENSMMUG0000004401 ENSMMUG00000044197 ENSMMUG00000044197 ENSMMUG00000044215 ENSMMUG00000044215 ENSMMUG00000044802 ENSMMUG00000044801 ENSMMUG00000044802 ENSMMUG00000048861 ENSMMUG00000048861 ENSMMUG00000048861 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048826 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048870 ENSMMUG00000048826 Not significant ENSMMUG00000048870 ENSMMUG00000048826 Not significant ENSMMUG00000049216 ENSMMUG00000049226 Not significant ENSMMUG00000049226 Not significant ENSMMUG00000049226 Not significant ENSMMUGO0000049226 Not significant ENSMMUGON000049226 Not significant	ENSMMUG00000029022 ENSMMUG00000029059 ENSMMUG00000037520 ENSMMUG00000037569	Not significant Not significant Not significant Not significant
ENSMMUG0000041411 ENSMMUG00000041723 ENSMMUG00000041744 ENSMMUG00000042014 ENSMMUG00000042143 ENSMMUG00000042261 ENSMMUG00000042625 ENSMMUG00000043259 ENSMMUG00000043450 ENSMMUG00000043513 ENSMMUG00000043771 ENSMMUG00000044001 ENSMMUG00000044197 ENSMMUG00000044197 ENSMMUG00000044215 ENSMMUG00000044215 ENSMMUG00000044802 ENSMMUG00000044801 ENSMMUG00000044802 ENSMMUG00000044801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG0000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG0000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMMUG00000004801 ENSMM	ENSMMUG00000038237 ENSMMUG00000038358 ENSMMUG00000038544 ENSMMUG00000039562	Not significant Mono late down Not significant Not significant
ENSMMUG00000042625 ENSMMUG00000043259 ENSMMUG00000043450 ENSMMUG00000043513 ENSMMUG00000043771 ENSMMUG00000044001 ENSMMUG00000044197 ENSMMUG00000044197 ENSMMUG00000044215 ENSMMUG00000044802 ENSMMUG00000044861 ENSMMUG00000044861 ENSMMUG00000045221 ENSMMUG00000045221 ENSMMUG00000045846 ENSMMUG00000045846 ENSMMUG00000045846 ENSMMUG00000048370 ENSMMUG00000048526 ENSMMUG00000048526 ENSMMUG00000049216 ENSMMUG00000049216 ENSMMUG00000049226 ENSMMUG000000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG000000049226 ENSMMUG0000000000049226 ENSMMUG0000000049226 ENSMMUG000000000049226 ENSMMUG0000000049226 ENSMMUG0000000000049226 ENSMMUG00000000000000000000000000000000000	ENSMMUG00000041723 ENSMMUG00000041744 ENSMMUG00000042014 ENSMMUG00000042143	Not significant Not significant Not significant Not significant Mono late down
ENSMMUG00000044001 ENSMMUG00000044197 ENSMMUG00000044215 ENSMMUG00000044802 ENSMMUG00000044861 ENSMMUG00000045221 ENSMMUG00000045846 ENSMMUG00000045846 ENSMMUG00000048370 ENSMMUG00000048526 ENSMMUG00000048526 ENSMMUG00000049030 ENSMMUG00000049030 ENSMMUG00000049030 ENSMMUG00000049216 ENSMMUG00000049216 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUG00000049226 ENSMMUGO0000049226 ENSMMUGO00000049226 ENSMMUGOO0000049226 ENSMMUGO00000049226 ENSMMUGO00000049226 ENSMMUGO000000000049226 ENSMMUGO000000049226 ENSMMUGO0000000049226 ENSMMUGO000000049226 ENSMMUGO000000049226 ENSMMUGO000000049226 ENSMMUGO0000000000000049226 ENSMMUGO00000000000000000000000000000000000	ENSMMUG00000042625 ENSMMUG00000043259 ENSMMUG00000043450 ENSMMUG00000043513	Not significant Not significant Not significant Not significant
ENSMMUG00000045846 Not significant ENSMMUG00000048370 Not significant ENSMMUG00000048526 Not significant ENSMMUG00000049030 Not significant ENSMMUG00000049216 Not significant ENSMMUG00000049226 Not significant EPS8 Mono early up ERMAP Not significant EVC2 Not significant EYA2 Not significant	ENSMMUG00000044001 ENSMMUG00000044197 ENSMMUG00000044215 ENSMMUG00000044802	Not significant Not significant Not significant Not significant
ENSMMUG00000049226 EPS8 Mono early up ERMAP EVC2 Not significant Not significant Not significant Not significant	ENSMMUG00000045846 ENSMMUG00000048370 ENSMMUG00000048526 ENSMMUG00000049030	Not significant Not significant Not significant Not significant
	ENSMMUG00000049226 EPS8 ERMAP EVC2 EYA2	Not significant Mono early up Not significant Not significant Not significant

FAM129C	Not significant
FAM135A	Not significant
FAM167A	Not significant
FAM173A	Not significant
FAM81A	Not significant
FANCL	Not significant
FARP2	Not significant
FBF1	Not significant
FBLN2	Not significant
FBXO10	Not significant
FCER2	Not significant
FCGR2A	Mono early up
FCRL1	Not significant
FCRL2	Not significant
FCRL3	Not significant
FCRL5	B/T early up
FCRLA	B/T early up
FFAR1	Not significant
FGD2	Mono late down
FGD4	Not significant
FGD6	Not significant
FGFR1	Not significant
FHAD1	Mono late up
FMNL2	Not significant
FMO5	Not significant
FOXP4	-
	Not significant
FRMD4A	Not significant
FSD2	Not significant
FUOM	Not significant
GAB2	Not significant
GANC	Not significant
GAPT	Lymph late up
GATB	Not significant
GATM	Not significant
GBA2	Not significant
GNG7	Not significant
GPSM1	Not significant
	-
GRHL1	Not significant
GRK3	Not significant
GRK4	Not significant
GSAP	Not significant
GSTT2	Not significant
HCK	Mono late up
HDAC9	Not significant
HES1	Not significant
	9

HES6 Not significant HEXIM2 Not significant

HHEX B down

Not significant HIST1H2AD HIST2H3A Not significant Not significant HMOX1 HPS3 Not significant **HRK** Not significant HS3ST1 Not significant HVCN1 Mono late up IFNLR1 Not significant IFT122 Not significant IRF5 Mono early up

IAZF1 Not significant **ICHAIN** Not significant KCNH3 Not significant Not significant KCNIP3 **KEL** Not significant **KIAA0319** Not significant Not significant KIF13A Not significant KIF18A

KLRF2

KMO

KMO

Not significant

KYNU

Not significant

LACTB2

Not significant

LAT2

Not significant

LDB2

Not significant

LGALS12

Not significant

Not significant

LIPJ Not significant
LIPN Not significant
LONRF3 Not significant
LRRC25 Mono late down
LRRC61 Not significant

LRRC70 Not significant
LRRK1 Not significant
LRRK2 Mono late down
LRRN3 Not significant
MAMU-DOA Not significant
MAMU-DOB Not significant

MAP3K20 Not significant
MAP7D2 Not significant

01-mar Mono late up

MARCKS Mono late up
MEF2C Mono late down
MEIG1 Not significant

MIA Not significant MILR1 Not significant Not significant **MLYCD** Not significant MND1 MNS1 Not significant **MOCOS** Mono late up MPP6 Not significant MS4A7 Mono late down **MSC** Not significant MTFR1 Not significant **MTHFR** Not significant MTMR14 Not significant **NAPSA** Not significant NCF1 Mono late up NDST1 Not significant Not significant NKX3-1 Not significant NLRP1 Not significant NOD2 NOX1 Not significant NPC2 Not significant Not significant NRGN NUAK2 Not significant Not significant NUGGC OGG1 Not significant OSBPL10 Not significant

PADI2 B down

Not significant PALM2 PAQR8 Not significant PAX5 Not significant **PDCL** Not significant PFKFB4 Not significant PGAM2 Not significant PGGT1B Not significant PHACTR1 Not significant PHLPP1 Not significant PIK3R6 Not significant PIP5K1B Not significant PLBD1 B/T early up PLD4 Not significant Not significant PLEKHJ1

PLXNB2 B down

PNOC Not significant
POU2AF1 Not significant
POU2F2 Not significant
PPFIA2 Not significant

PPM1I Not significant **PRCP** Mono late down PRELID2 Not significant Not significant PRUNE1 **PTAFR** Mono late down PTCH1 Not significant PTDSS2 Not significant PTK2 Not significant PTP4A3 Not significant PTPDC1 Not significant PUS₁₀ Not significant OSOX2 Not significant RAB11B Not significant RAB30 Not significant RAB3A Not significant Not significant RAB3C RAB44 Mono late up Not significant RABEP2 RANBP10 Not significant **RANGRF** Not significant Not significant RAPGEF5 RASGRP3 Not significant Not significant RASSF4 RBM3 Not significant RF00191 Not significant RF01957 Not significant RGL1 Mono late up **RHOB** Not significant Not significant RHOBTB2 RHOO Not significant Not significant RIPOR1 RNASEK Not significant RNF144B Not significant RNF215 Not significant Not significant RNFT1 **RUBCNL** Not significant RYR1 Not significant S100A13 Not significant SAG Not significant Not significant SAP30 SAV1 Not significant SCAMP4 Not significant Not significant SCFD2 **SCIMP** Not significant SEMA4B Not significant

SETMAR Not significant
SGTB Not significant
SIGLEC10 Not significant
SIGLEC6 Not significant
SIPA1L3 Not significant
SLC15A2 Not significant
SLC15A3 B down

SLC15A3 B down SLC15A4 Not significant

SLC15A4

SLC16A11

SLC23A1

SLC25A29

SLC25A40

Not significant
Not significant
Not significant
Not significant
Not significant

SLC29A2 Not significant
SLC29A3 Not significant
SLC2A10 Not significant
SLC43A2 Not significant
SLC9A7 Not significant
SLC05A1 Not significant

SLX4

SMYD2

Not significant

SNX16

Not significant

SNX18

Not significant

SOGA1 Not significant
SOX5 Not significant
SPATA33 Not significant
SPATA6 Not significant
SPHK2 Not significant

SPHK2 Not significant
SPI1 Not significant
SSPN Not significant
ST3GAL5 Not significant
ST3GAL6 Not significant
STAP1 Mono late up

STAP1 Mono late up
STARD5 Not significant
STARD7 Not significant
STARD9 Not significant
STK38L Not significant
SYVN1 Not significant

TBC1D9 Not significant
TBCCD1 Not significant
TCEANC2 Not significant
TCF4 Not significant
TCTN1 Not significant

TEX9 Not significant

TFEC Mono late up
THNSL2 Not significant
TIMM8A Not significant
TLE1 Not significant
TLR1 Not significant
TLR1 R down

TLR10 B down TLR9 Not significant TMED7 Not significant **TMEM231** Not significant TNN₁₂ Not significant TNS3 Not significant **TP73** Not significant TRIM47 Not significant TRIM6 Not significant TRIM7 Not significant **TRIO** Not significant TRMT5 Not significant Not significant TTC21A **TYMP** Mono early up UBE2E2 Not significant UCHL1 Not significant UFM1 Not significant ULK4 Not significant UPB1 Not significant USP30 Not significant

USP46
UTS2B
Not significant
VASH1
Not significant
VAV2
Not significant
VNN2
Mono late up
VPREB3
VPS37C
Not significant
Not significant

WDFY4 B down

WDR19 Not significant WDR35 Not significant WDR92 Not significant WHRN Not significant WIF1 Not significant WNT7B Not significant Not significant XKRX ZDHHC23 Not significant ZMIZ1 Not significant Not significant **ZNF165** Not significant **ZNF175 ZNF283** Not significant

ZNF333	Not significant
ZNF529	Not significant
ZNF557	Not significant
ZNF608	Not significant
ZNF621	Not significant
ZNF768	Not significant
ZNF790	Not significant
ZNF821	Not significant
ANKRD16	Not significant
ATN1	Not significant
BAIAP2	Not significant
BCKDHB	Not significant
BRSK1	Not significant
Clorf112	Not significant
CABP5	Not significant
CCDC154	Not significant
CHKA	Not significant
COL9A2	Not significant
CPNE8	Not significant
CTNNAL1	Not significant
DXO	Not significant
ENSMMUG00000000085	Not significant
ENSMMUG0000008515	Not significant
ENSMMUG00000008795	Not significant
ENSMMUG00000044638	Not significant
ENSMMUG00000047538	Not significant
JADE3	Not significant
KCND1	Not significant
KHDRBS3	Not significant
KSR1	Not significant
LDB3	Not significant
LRRC32	_
MAMDC4	Not significant Not significant
MMS22L	
	Not significant
ODF3B	Mono early up
PAPSS2	Not significant
PRKAR2B	Not significant
RBM47	Not significant
RELB	Not significant
SAMD4A	Not significant
CETD7	10-sep Not significant
SETD7	Not significant
SLC16A1	Not significant
TAGLN	Not significant
TMEM50B	Not significant

TPST1	Not significant
TREX1	Not significant
UCK2	Not significant
ZNF613	Not significant
ZNF736	Not significant
ZNF776	Not significant
ATRNL1	Not significant
CST3	Mono late down
DEPP1	Not significant
GCA	Mono late up
RHEBL1	Not significant
RNF43	Not significant
SYNPO	Not significant
VWA3B	Not significant
ZMIZ2	Not significant
ZNF691	Not significant
ZSCAN5A	Not significant
ABCB8	Not significant
ADAMTS7	Not significant
ADAM137 ADAT1	Not significant
AGPAT4	Not significant
ALDH1A3	Not significant
ANGPT2	
ANKRD42	Not significant Not significant
ANKS1A	Not significant
ANO10	•
ATG4A	Not significant
	Not significant
ATP11A	Not significant
ATP8B4 BACE1	Not significant
	Not significant
BTNL3	Not significant
C3H7orf61	Not significant
CANKMT	Not significant
CARNS1	Not significant
CASP6	Not significant
CCDC102A	Not significant
CCDC138	Not significant
CCDC158	Not significant
CCDC24	Not significant
CD244	Not significant
CD300C	Not significant
CD300LD	Not significant
CDYL2	Not significant
CGREF1	Not significant
CGRRF1	Not significant

CMTR2	Not significant
CNNM2	Not significant
COA7	Not significant
COL5A3	Not significant
CPE	Not significant
	-
CPM	Not significant
CSRNP2	Not significant
CTRL	Not significant
CTTN	Not significant
CXCR2	Not significant
DHCR24	Not significant
DIXDC1	Not significant
DNASE1	Not significant
DPEP1	Not significant
DPH7	Not significant
EEF1AKMT3	-
	Not significant
EHHADH	Not significant
ENO3	Not significant
ENSMMUG0000000126	Not significant
ENSMMUG00000002212	Not significant
ENSMMUG00000007596	Not significant
ENSMMUG00000007703	Not significant
ENSMMUG00000008567	Not significant
ENSMMUG00000009114	Not significant
ENSMMUG0000009165	Not significant
ENSMMUG0000009456	Not significant
ENSMMUG00000011326	Not significant
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ENSMMUG00000012053	Not significant
ENSMMUG00000013741	Not significant
ENSMMUG00000016232	Not significant
ENSMMUG00000018317	Not significant
ENSMMUG00000018327	Not significant
ENSMMUG00000028816	Not significant
ENSMMUG00000029087	Not significant
ENSMMUG00000029772	Not significant
ENSMMUG00000029877	Not significant
ENSMMUG0000030006	Not significant
ENSMMUG0000037991	Not significant
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ENSMMUG00000038017	Not significant
ENSMMUG00000038317	Not significant
ENSMMUG00000038434	Not significant
ENSMMUG00000039867	Not significant
ENSMMUG00000040340	Not significant
ENSMMUG00000040356	Not significant
ENSMMUG00000041097	Not significant

ENSMMUG00000041166	Not significant
ENSMMUG00000041546	Not significant
ENSMMUG00000041658	Not significant
ENSMMUG00000042228	Not significant
ENSMMUG0000043299	Not significant
	_
ENSMMUG00000043726	Not significant
ENSMMUG00000043811	Not significant
ENSMMUG00000044222	Not significant
ENSMMUG00000045642	Not significant
ENSMMUG00000045910	Not significant
ENSMMUG00000046069	Not significant
ENSMMUG00000046257	Not significant
ENSMMUG00000047628	Not significant
ENSMMUG00000047929	Not significant
ENSMMUG0000047940	Not significant
ENSMMUG00000047540	Not significant
ENSMMUG00000049886	_
	Not significant
ERMP1	Not significant
F12	Not significant
FAM102B	Not significant
FAR2	Not significant
FCER1G	Not significant
FCGBP	Not significant
FECH	Not significant
FNIP2	Not significant
FSIP1	Not significant
GCNA	Not significant
GDPD3	Not significant
GPR21	Not significant
GPR34	_
	Not significant
GPR88	Not significant
GTF2E1	Not significant
GTF2H4	Not significant
HEATR9	Not significant
HES4	Not significant
HGD	Not significant
HIC1	Not significant
HPS6	Not significant
HTRA4	Not significant
IL12RB1	Not significant
INIP	Not significant
IPO13	-
	Not significant
ITGA9	Not significant
ITLN1	Not significant
KANSL3	Not significant

KATNB1 Not significant KIR2DL4 Not significant KLHL29 Not significant Not significant KRT23 LARS2 Not significant LATS2 Not significant LIMD1 Not significant LIPC Not significant LRRC20 Not significant LRRC43 Not significant LSM5 Not significant MAMU-KIR Not significant MBD5 Not significant **MICB** Not significant MICU3 Not significant **MMAA** Not significant Not significant MMRN1 Not significant MON1B MRC2 Not significant MXD1 Not significant Not significant MYO1D NAT1 Not significant Mono late down NCAM1 NEK10 Not significant NEXN Not significant NUAK1 Not significant ORAI2 Not significant OSBPL5 Not significant Not significant PAAF1 **PAEP** Not significant Not significant PARD6A PC Not significant **PDGFD** Not significant **PDGFRB** Not significant Not significant **PECR** PGS1 Not significant PIF1 Not significant **PIGP** Not significant PLXNA2 Not significant Not significant PLXND1 POLDIP3 Not significant PRKD1 Not significant Not significant PRR5L Not significant PTAR1 PTPN7 Not significant

RAB27B RAB40AL	Not significant Not significant
RAD21L1	Not significant
RFX1	_
	Not significant
RNF165	Not significant
RNF170	Not significant
ROR2	Not significant
RPRD1B	Not significant
RUSC1	Not significant
SDSL	Not significant
SERAC1	Not significant
SERPINE2	Not significant
SH2B1	Not significant
SH2D1B	Not significant
SH2D4A	Not significant
SH3RF1	Not significant
SIGLEC1	Mono late up
SLA2	Not significant
SLC24A3	Not significant
SLC35E2B	Not significant
SLX1A	Not significant
SMIM10	Not significant
SMIM10L1	Not significant
SMKR1	Not significant
SMYD3	Not significant
SNRPG	Not significant
SRPRB	Not significant
SSX2IP	Not significant
STK16	Not significant
SUSD1	Not significant
TAF1L	Not significant
TBC1D2	Not significant
TBC1D7	Not significant
TDP1	Not significant
TLR3	Not significant
TMEM181	Not significant
TMEM254	Not significant
TMEM38A	Not significant
TMEM67	Not significant
TNFAIP8L2	Not significant
TONSL	Not significant
TRAPPC2L	Not significant
TRIM17	Not significant
TRIM3 TRPM8	Not significant
LIVEIMO	Not significant

TSPOAP1	Not significant
WIPI1	Not significant
ZBED6CL	Not significant
ZFP64	Not significant
ZNF334	Not significant
ZNF483	Not significant
ZNF544	Not significant
ZNF562	Not significant
ZNF620	Not significant
ZNF658	Not significant
ZNF699	Not significant
ZNF74	Not significant
ZNF749	Not significant
ZNF77	Not significant
ZNF81	Not significant
ZSCAN9	_
AK9	Not significant
	Not significant
ARID3B	Not significant
CHCHD5	Not significant
ENSMMUG0000000324	Not significant
ENSMMUG00000045209	Not significant
IMP3	Not significant
RPUSD4	Not significant
TIAM2	Not significant
ABHD6	Not significant
AIF1	Mono late down
CD14	Not significant
CNGA1	Not significant
DOLPP1	Not significant
EIF1AY	Not significant
ENSMMUG00000004523	Not significant
ENSMMUG0000010128	Not significant
ENSMMUG00000023102	Not significant
ENSMMUG00000029285	Not significant
ENSMMUG00000041861	Not significant
ENSMMUG00000043113	Not significant
ENSMMUG00000045841	Not significant
FAM111B	Not significant
HCCS	Not significant
LRRC40	Not significant
RDH11	Not significant
RF00548	Not significant
S100A2	Mono late up
S100A2 S100P	Mono late up
SFXN3	Not significant
JI AND	ivot significant

SPATA1 Not significant YIF1B Not significant **ZNF213** Not significant Not significant **ZNF721** ABCA6 Not significant ABCC3 Not significant ABHD2 Not significant ACER3 Not significant **ACPP** Not significant **ACRBP** Not significant ACSS2 Not significant ACVR2A Not significant ADA2 Not significant ADAM28 Mono late up ADAMDEC1 Mono late up ADAMTSL4 Not significant Not significant ADAP2 Not significant ADGRB3 ADGRE1 Not significant ADGRE2 Not significant ADGRG3 Not significant **ADM** Mono late up Not significant AFG1L AIFM2 Not significant ALDH1A1 Not significant ALDH3B1 Not significant Not significant ALOX5 **AMACR** Not significant Not significant AMDHD1 AMDHD2 Not significant ANKRD22 Mono late up ANKRD9 Not significant ANXA3 Mono late up AQP3 Not significant AQP9 Not significant ARAP3 Not significant ARG2 Not significant ARHGAP42 Not significant ARHGAP6 Not significant ARHGEF10L Mono late up ARHGEF40 Not significant ARL2BP Not significant ASAP2 Not significant Not significant ATG7 ATP1B1 Not significant

ATP6AP1 Not significant ATP6V0D1 Not significant ATP9A Not significant AZU1 Mono late up **B3GALNT1** Not significant B3GALT4 Not significant B3GNT8 Not significant BATF3 Not significant BCL2L14 Not significant BCL2L15 Not significant BMX Not significant **BVES** Not significant C10H20orf194 Not significant C15H9orf64 Not significant C15orf65 Not significant C19orf38 Not significant Not significant C1H1orf50 C1QB Not significant C1QC Not significant Clorf122 Not significant Clorf127 Not significant Clorf162 Not significant C20orf27 Not significant C3 Mono late up C3AR1 Mono late up C5AR1 Mono early up Not significant CALCRL CAMK1 Not significant **CAMP** Mono late down CARD9 Mono late down CASP5 Not significant **CATIP** Not significant CAVIN3 Not significant CCDC149 Not significant CCDC151 Not significant CCDC152 Mono late down CCDC189 Not significant CCL₂ Not significant CCL3 Not significant CCL8 Not significant CCR1 Mono early up CCR2 Not significant Not significant CCS Mono early up CD163 CD163L1 Not significant

CD177 Mono late up CD1B Not significant CD1D Not significant Not significant CD300LB CD300LF Not significant **CD33** Not significant **CD36** Not significant **CD68** Not significant **CD93** Not significant CDA Not significant CDC42BPA Not significant CDC42EP4 Not significant CDKN1C Not significant CDKN2B Not significant **CEBPD** Not significant Not significant CELSR1 Not significant CEND1 **CFH** Not significant CHIT1 Not significant CISD2 Not significant CLCN4 Not significant CLCN5 Not significant CLEC₁₀A Not significant CLEC4A Not significant CLEC6A Not significant CLEC7A Not significant **CLMN** Not significant CLN8 Not significant Not significant **CMBL** CMKLR1 Not significant Not significant CMTM2 CNOT11 Not significant **CNTLN** Not significant COMMD10 Not significant **COMP** Not significant CPED1 Not significant CPNE2 Not significant **CPVL** Mono late down **CRIPT** Not significant Not significant CRISPLD2 **CRTAP** Not significant CSF1R Not significant Not significant CSF2RA Mono early up CSF3R **CSTA** Mono early up

CTH Not significant CUEDC1 Not significant CXCL1 Not significant CXCL10 Not significant CXCL16 Mono late down CXCL2 Not significant CXCL3 Not significant CXHXorf57 Not significant CYBRD1 Not significant CYFIP1 Not significant CYP1B1 Not significant CYP39A1 Not significant CYP3A5 Not significant CYP4V2 Not significant D2HGDH Not significant Not significant **DAGLB** Not significant **DBT** Not significant **DCN** DDR1 Not significant **DERA** Not significant **DES** Not significant DESI1 Not significant Not significant DGAT2 DHRS9 Mono late up DIRC2 Not significant DISC1 Not significant DKK2 Not significant DNASE2 Not significant Not significant DNM1 DOCK4 Not significant Not significant DOCK7 **DPYD** Not significant DPYSL3 Not significant DRAM1 Not significant **DYSF** Mono late up E2F6 Not significant EAF1 Not significant EGFL7 Not significant EIF4E Not significant EIF5A2 Not significant EML₆ Not significant EMP1 Not significant Not significant ENPP2 ENSMMUG00000000729 Not significant ENSMMUG00000002513 Not significant

ENSMMUG00000005766	Not significant
ENSMMUG00000006604	Not significant
ENSMMUG00000007560	Not significant
ENSMMUG00000007936	Not significant
ENSMMUG00000008289	Not significant
ENSMMUG00000011569	Not significant
ENSMMUG00000012749	Not significant
ENSMMUG0000013897	Not significant
ENSMMUG00000014404	Not significant
ENSMMUG00000016578	Not significant
ENSMMUG00000016619	Not significant
ENSMMUG0000017246	Not significant
ENSMMUG00000017871	Not significant
ENSMMUG0000018146	Not significant
ENSMMUG0000018408	Not significant
ENSMMUG0000018474	Not significant
ENSMMUG0000019688	Not significant
ENSMMUG0000019939	Not significant
ENSMMUG0000020005	Not significant
ENSMMUG0000020012	Not significant
ENSMMUG0000020155	Not significant
ENSMMUG00000020182	Not significant
ENSMMUG00000020473	Not significant
ENSMMUG00000021876	Not significant
ENSMMUG00000022334	Not significant
ENSMMUG00000029123	Not significant
ENSMMUG00000029821	Not significant
ENSMMUG00000030384	Not significant
ENSMMUG00000032418	Not significant
ENSMMUG00000037682	Not significant
ENSMMUG00000037683	Not significant
ENSMMUG00000037684	Mono late up
ENSMMUG00000037774	Not significant
ENSMMUG00000037831	Not significant
ENSMMUG00000038238	Not significant
ENSMMUG00000038383	Not significant
ENSMMUG00000039160	Not significant
ENSMMUG00000039900	Not significant
ENSMMUG00000040509	Not significant
ENSMMUG00000041076	Not significant
ENSMMUG00000041102	Not significant
ENSMMUG00000041198	Not significant
ENSMMUG00000041249	Not significant
ENSMMUG00000042810	Not significant
ENSMMUG00000043523	Not significant

ENSMMUG00000043877	Not significant
ENSMMUG00000043970	Not significant
ENSMMUG00000044290	Not significant
ENSMMUG00000044652	Mono early up
ENSMMUG00000045046	Not significant
ENSMMUG0000045247	Not significant
ENSMMUG0000045411	Mono late down
ENSMMUG00000045501	Not significant
ENSMMUG00000045301	
	Not significant
ENSMMUG00000046614	Not significant
ENSMMUG00000046629	Not significant
ENSMMUG00000048321	Not significant
ENSMMUG00000048414	Not significant
ENSMMUG00000049010	Not significant
ENSMMUG00000049230	Not significant
EPB41L3	Not significant
EPHB2	Not significant
ERBB2	Not significant
EREG	Mono early up
ERLIN2	Not significant
F13A1	Mono late up
FAM120AOS	Not significant
FAM122A	Not significant
FAM127A	Not significant
FAM131A	Not significant
FAM151B	Not significant
FAM161B	Not significant
FAM72A	Not significant
FBP1	Not significant
FCAR	Mono early up
FCGR1A	Mono late up
FFAR4	Not significant
FKBP1B	Not significant
FKBP9	Not significant
FLT3	Not significant
FLVCR2	<u> </u>
FN1	Not significant
	Not significant
FOPNL FOR 1	Not significant
FOSL1	Not significant
FOXK1	Not significant
FPR1	Mono late up
FPR2	Not significant
FPR3	Not significant
FRRS1	Not significant
G0S2	Mono early up

GAB1 Not significant GABARAPL2 Not significant GAS2L1 Not significant Not significant GAS₆ GDAP2 Not significant GIB2 Not significant GLB1L Not significant **GLRB** Not significant **GLUL** Not significant GNB4 Not significant GOLM1 Not significant GOSR2 Not significant **GPNMB** Not significant **GPR162** Not significant GPR84 Mono late up Not significant GRB10 Not significant GST01 **GUCY1A1** Not significant GUCY1B1 Mono late down **HBEGF** Mono late down HDHD3 Not significant **HFE** Not significant **HGF** Not significant HINT3 Not significant HIST1H2BK Not significant HK3 Mono late up Not significant **HOMEZ** HRH1 Not significant Not significant HRH2 HSD17B12 Not significant Not significant HTRA1 HYAL2 Not significant ICA1 Not significant ID1 Not significant IDO1 Mono late up IER5L Not significant IFNGR2 Not significant IFT22 Not significant IFT81 Not significant Not significant IGF2BP2 IGFBP7 Not significant IGSF6 Mono late down IL15RA Not significant Not significant IL1A IL1B Mono late down

IL1RAP Not significant IL1RN Mono late up Not significant IL₆ Not significant **INSR IPMK** Not significant Not significant IRAK3 ISCA2 Not significant JAG1 Not significant IDP2 Not significant Not significant IOSD2 JUP Not significant KANK2 Not significant KBTBD11 Not significant KCNE3 Not significant KCNI15 Not significant KCN₁₂ Not significant Not significant KCNQ1 KIF9 Not significant KLF7 Not significant Not significant KRBA1 LACC1 Not significant LAMB2 Not significant LAMC1 Not significant LARGE1 Not significant Not significant LCN₂ LDLRAD3 Mono early up LIAS Not significant LILRA2 Not significant LILRA3 Mono early up LILRA5 Not significant Not significant LILRA6 LILRB5 Not significant LLPH Not significant LMF1 Not significant LPCAT2 Not significant LRP1 Mono late down LRP11 Not significant LRRC4 Not significant LRRC75A Not significant Not significant LTB4R **LTBR** Not significant LYRM4 Not significant Not significant LYSMD2 Not significant MAATS1 **MAFB** Not significant

MAK Not significant Not significant **MANBA** Not significant MAOA Not significant MBTPS2 MCEMP1 Mono late up Not significant MCTP1 **MEFV** Mono late down Not significant MEGF9 METTL1 Not significant MGST1 Not significant MICALL2 Not significant Not significant MIDN **MITF** Not significant Not significant MLF1 MMP1 Not significant **MMP19** Not significant Not significant MPEG1 **MPO** Mono late up MPP5 Not significant MR1 Not significant Not significant MRC1 MS4A4A Not significant MS4A4E Mono late up MS4A6A Mono late up MSR1 Not significant **MSRA** Not significant MT1E Not significant MTSS1L Not significant Not significant **MTURN MYOF** Mono late up Not significant NACC2 **NAGA** Not significant **NAIP** Not significant **NANP** Not significant **NAPRT** Not significant NAXD Not significant NCEH1 Not significant **NCKIPSD** Not significant NECAP1 Not significant NFE2 Mono late up **NGFR** Not significant NHEI1 Not significant NLRP12 Not significant Not significant NLRP3 NMRK1 Not significant

NOCT Not significant **NPL** Not significant NPTX2 Not significant Not significant NRG1 NRP1 Not significant Not significant NUDT13 **NUDT7** Not significant NUPR1 Not significant OAF Not significant Not significant OLR1 OSM Mono early up P2RX4 Not significant P2RY1 Not significant **P2RY12** Not significant **P2RY13** Not significant Not significant P2RY2 Not significant P2RY6 Not significant PADI4 PAK1 Not significant PAQR7 Not significant **PAXX** Not significant **PBLD** Not significant PDE8B Not significant PDSS1 Not significant PELI3 Not significant PEX13 Not significant PGPEP1 Not significant PHLDA2 Not significant PID1 Mono early down **PIGB** Not significant **PILRA** Mono late down **PISD** Not significant **PKIB** Not significant PKP4 Not significant PLA1A Not significant PLA2G12A Not significant PLA2G4A Not significant PLA2G7 Not significant **PLAU** Not significant Mono early up **PLAUR** PLCB3 Not significant PLCD1 Not significant Not significant **PLLP** Not significant PLOD1 PLPPR2 Not significant

PLVAP Mono late down PLXDC2 Not significant PMP22 Not significant **PNP** Not significant PON₂ Not significant POPDC3 Not significant PPARGC1B Not significant PPFIA4 Not significant PPM1H Not significant PPM1I Not significant PRKRIP1 Not significant PRRG4 Mono early up **PRX** Not significant PSTPIP2 Mono late up PTGER2 Mono early up Not significant **PTGES** Not significant **PTGIR** Mono late down PTGS2 **PTPRO** Not significant PXMP2 Not significant **PYGL** Mono early up **OPCT** Mono early up RAB13 Mono late up RAB39A Not significant RAB3D Not significant RAB7B Not significant Not significant RAP2B RASL10A Mono late down **RBKS** Not significant **RCVRN** Not significant REC114 Not significant **RENBP** Not significant REPS2 Not significant RF00004 Not significant RF00020 Not significant Not significant RHEX RIN2 Mono late up RNASE1 Not significant RNASE2 Not significant Not significant RNASE3 **RNF135** Not significant **RNF175** Not significant ROBO2 Not significant Not significant **RPIA RRAGD** Not significant

RXRA	Not significant
S100A12	Not significant
SAC3D1	Not significant
SAR1B	Not significant
	-
SASH1	Not significant
SCAMP5	Mono late down
SCIN	Not significant
SCN1B	Not significant
SCOC	Not significant
SDC2	Not significant
SDC3	Mono late up
SDHAF3	Not significant
SECTM1	Not significant
SELENOT	Not significant
SERPINB10	Mono early up
SERPINB2	Not significant
SERPINE1	_
	Not significant
SERPING1	Not significant
SESTD1	Not significant
SETD9	Not significant
SH2B2	Not significant
SH3D21	Not significant
SHTN1	Mono early up
SIGLEC11	Not significant
SIGLEC12	Not significant
SIGLEC9	Not significant
SIRPB2	Not significant
SLAMF9	Not significant
SLC12A7	Not significant
SLC16A6	Not significant
	-
SLC22A15	Not significant
SLC22A4	Not significant
SLC25A16	Not significant
SLC26A11	Not significant
SLC2A14	Not significant
SLC2A5	Mono late up
SLC2A8	Not significant
SLC30A1	Not significant
SLC31A1	Not significant
SLC35F5	Not significant
SLC44A3	Not significant
SLC46A1	Not significant
SLC46A2	Not significant
SLC47A1	-
	Not significant
SLC5A10	Not significant

SLC7A7	Not significant
SLC8A1	Not significant
SLC8B1	Not significant
SLFN11	Not significant
SMAD1	Not significant
	_
SNAPC1	Not significant
SNX24	Not significant
SORD	Not significant
SPAG1	Not significant
SPHK1	Not significant
SPRED1	Not significant
SRC	Not significant
SREBF1	Not significant
ST7	Not significant
STAB1	Not significant
STAC3	Not significant
STEAP4	Not significant
STK19	Not significant
SUCNR1	Mono late up
SULF2	Not significant
TBC1D8	Not significant
TBXAS1	-
	Not significant
TCF7L1	Not significant
TCF7L2	Not significant
TFPI	Not significant
TFPI2	Not significant
TGFBI	Mono late down
THAP10	Not significant
THBD	Not significant
THBS1	Not significant
THEMIS2	Not significant
TICAM1	Not significant
TKTL1	Not significant
TLR2	Mono early up
TLR4	Not significant
TLR5	Not significant
TLR8	Not significant
TMEM128	Not significant
	_
TMEM184B	Not significant
TMEM218	Not significant
TMEM51	Not significant
TMEM86A	Not significant
TMLHE	Not significant
TMPRSS3	Not significant
TMX2	Not significant

TNFAIP2 Not significant **TNFAIP6** Not significant TNFRSF21 Not significant Not significant TOMM5 TPP1 Not significant TPPP3 Not significant TRAM2 Not significant TREM1 Not significant TRIM36 Not significant Not significant TRIM55 TRPM2 Not significant TRPM6 Not significant **TSKS** Not significant TSPAN4 Not significant **TST** Not significant TTC39B Not significant Not significant TTYH2 Not significant TWIST2 UAP1L1 Not significant Not significant UBE2E3 UNC13B Not significant USHBP1 Not significant **VDR** Not significant Mono late down VMO1 VNN1 Not significant **VSIR** Not significant VSTM1 Not significant WDFY3 Not significant **WLS** Not significant WWC1 Not significant WWC2 Not significant XPR1 Not significant YBX3 Mono late down YIPF4 Not significant ZBTB47 Not significant ZCCHC24 Not significant ZCWPW1 Not significant ZFHX3 Not significant **ZNF117** Not significant **ZNF503** Not significant **ZNF516** Not significant **ZNF593** Not significant Not significant **ZNF784** Not significant **ZNF823** ZNRF2 Not significant

A2M Not significant ABCA3 Not significant ABT1 Not significant Not significant ACER2 ACKR1 Not significant ACOD1 Not significant ACVRL1 Not significant AGPAT2 Not significant AK3 Not significant AKR7A2 Not significant **ALPL** Not significant **ANLN** Not significant APH1A Not significant APLF Not significant **APOD** Not significant ARF1 Not significant Not significant ARHGAP17 Not significant ARMC5 ASAP3 Not significant ATP6V1A Not significant **B3GLCT** Not significant **BAMBI** Not significant BCORL1 Not significant **BGLAP** Not significant BMT2 Not significant BNIP3 Not significant **BORCS8** Not significant BTBD9 Not significant Not significant C16H17orf62 Clorf198 Not significant C7orf49 Not significant CALML6 Not significant CAV2 Not significant CCDC30 Not significant CCDC51 Not significant CD59 Not significant CDC45 Not significant CDCA8 Not significant **CEBPE** Not significant Not significant **CENPI CENPO** Not significant CIAPIN1 Not significant Not significant **CKB** CLEC1B Not significant CLEC4D Not significant CLEC4E Not significant CLU Mono late up **CLUH** Not significant Not significant COMMD2 COQ10B Not significant CPT2 Not significant CRLS1 Not significant CTPS2 Not significant CTTNBP2 Not significant CXCR1 Not significant CYB561D2 Not significant CYP2I2 Not significant DACH1 Not significant DCK Not significant DEPDC1 Not significant **DGKH** Not significant Not significant DHRS7B Not significant DHX34 DIAPH3 Not significant DLEU7 Not significant DNAJA3 Not significant DNAJC5 Not significant **DOLK** Not significant DZIP1L Not significant E2F8 Not significant ECT2 Not significant Not significant EFHC1 Not significant EFNB1 Not significant EIF2B2 EIF4EBP2 Not significant Not significant **ELANE** ELOVL1 Not significant **ENDOV** Not significant ENSMMUG00000000436 Not significant ENSMMUG00000000502 Not significant ENSMMUG00000001214 Not significant ENSMMUG00000004421 Not significant ENSMMUG00000004924 Not significant ENSMMUG00000005624 Not significant ENSMMUG00000006332 Not significant ENSMMUG00000007420 Not significant ENSMMUG00000009500 Not significant ENSMMUG00000011452 Not significant Not significant ENSMMUG00000011897 ENSMMUG00000012016 Not significant

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FAM50B	Not significant
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HYAL3	Not significant
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MAG	Not significant
MAPS:	Not significant
MARCO	Mono late up
MED20	Not significant
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MERTK METTL7B	Not significant
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MGAM MIXL1	Not significant
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MS4A3	Not significant
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RASGRP4 Not significant RCBTB2 Not significant Not significant RIN1 Not significant RMDN2 RMI1 Not significant Not significant RNASE10 **RPE** Not significant RRP7A Not significant RUNDC1 Not significant S100A3 Not significant SDHAF4 Not significant **SELP** Not significant SFT2D2 Not significant SFXN1 Not significant SFXN4 Not significant Not significant **SG01** Not significant SH3PXD2B Not significant SHROOM3 SHROOM4 Not significant SKA1 Not significant SKA3 Not significant SLC12A9 Not significant SLC1A3 Not significant SLC24A1 Not significant SLC35A1 Not significant SLCO2B1 Not significant SLCO4A1 Not significant SMPD3 Not significant Not significant SMUG1 SNAPC3 Not significant SNAPC5 Not significant **SNAPIN** Not significant SNX₃₀ Not significant SPATA2L Not significant SPATC1 Not significant SPPL2B Not significant SSNA1 Not significant **ST14** Not significant STARD8 Not significant STEAP3 Not significant **STOM** Not significant **STRADB** Not significant Not significant SUV39H2 SWSAP1 Not significant TBC1D10B Not significant

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TMEM11	Not significant
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TMEM53	Not significant
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TOR3A	Not significant
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TROAP	Not significant
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TTK	Not significant
TUFT1	Not significant
TYMS	Not significant
UACA	Not significant
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WNT5A	Not significant
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ZNF701	Not significant
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CDC25C	Not significant
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PEX10	Not significant
PIGM	Not significant
PLA2G2D	Not significant
POLE2	Not significant
PRSS21	Not significant
RBFOX2	Not significant
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