Supplement 1: The gene contents of the Sophia Clinical Exome Solution v2 assay

A2M,A4GALT,A4GNT,AAAS,AADAC,AADACL2,AAGAB,AANAT,AARS,AARS2,AASS,ABAT,ABCA1,ABCA1
0,ABCA12,ABCA13,ABCA2,ABCA3,ABCA4,ABCA5,ABCA7,ABCB1,ABCB11,ABCB4,ABCB5,ABCB6,ABCB
7,ABCC1,ABCC11,ABCC12,ABCC2,ABCC3,ABCC4,ABCC6,ABCC8,ABCC9,ABCD1,ABCD3,ABCD4,ABC
G1,ABCG2,ABCG5,ABCG8,ABHD1,ABHD12,ABHD5,ABI3BP,ABL1,ABL2,ABO,ABRAXAS1,ACACA,ACA
CB,ACAD10,ACAD11,ACAD8,ACAD9,ACADL,ACADM,ACADS,ACADSB,ACADVL,ACAN,ACAT1,ACAT2,
ACBD5,ACBD6,ACCS,ACE,ACHE,ACKR1,ACKR3,ACLY,ACMSD,ACO2,ACOX1,ACP1,ACP2,ACP5,ACP6,
ACR,ACSF3,ACSL4,ACSL5,ACSL6,ACSM2B,ACSM3,ACTA1,ACTA2,ACTB,ACTC1,ACTG1,ACTG2,ACTN1
,ACTN2,ACTN3,ACTN4,ACTR3C,ACTRT1,ACVR1,ACVR1B,ACVR1C,ACVR2A,ACVR2B,ACVRL1,ACY1,A
DA,ADA2,ADAM10,ADAM12,ADAM17,ADAM19,ADAM22,ADAM23,ADAM33,ADAM7,ADAM9,ADAMTS1
,ADAMTS10,ADAMTS13,ADAMTS16,ADAMTS17,ADAMTS18,ADAMTS19,ADAMTS2,ADAMTSL2,ADAMT
SL3,ADAMTSL4,ADAR,ADARB1,ADCY1,ADCY10,ADCY3,ADCY5,ADCY6,ADCY9,ADCYAP1,ADD1,ADD2
,ADGRA2,ADGRA3,ADGRG1,ADGRG4,ADGRV1,ADH1A,ADH1B,ADH1C,ADH4,ADH5,ADH7,ADIPOQ,A
DIPOR1,ADK,ADM,ADNP,ADORA1,ADORA2A,ADORA3,ADRA1A,ADRA2A,ADRA2B,ADRA2C,ADRB1,A
DRB2,ADRB3,ADSL,ADTRP,AEBP1,AFF2,AFF3,AFF4,AFG3L2,AFP,AGA,AGBL1,AGBL4,AGER,AGGF1,
AGK,AGL,AGMO,AGO1,AGO2,AGPAT2,AGPS,AGRN,AGRP,AGT,AGTPBP1,AGTR1,AGTR2,AGXT,AGXT
2,AHCY,AHDC1,AHI1,AHNAK2,AHR,AHRR,AHSG,AHSP,AICDA,AIF1,AIFM1,AIMP1,AIP,AIPL1,AIRE,A
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1,ALX3,ALX4,AMACR,AMBN,AMD1,AMELX,AMELY,AMER1,AMH,AMHR2,AMN,AMPD1,AMPD2,AMPD
3,AMT,ANAPC1,ANG,ANGPT1,ANGPT2,ANGPTL3,ANGPTL4,ANGPTL5,ANGPTL6,ANK1,ANK2,ANK3,A
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,APLF,APLNR,APOA1,APOA2,APOA4,APOA5,APOB,APOBEC1,APOBEC3B,APOBEC3G,APOBEC3H,AP
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,APP,APRT,APTX,AQP1,AQP2,AQP3,AQP4,AQP5,AQP7,AR,ARAF,AREG,AREL1,ARF4,ARFGEF2,ARFR
P1,ARG1,ARHGAP18,ARHGAP24,ARHGAP26,ARHGAP29,ARHGAP31,ARHGAP45,ARHGAP6,ARHGAP9
,ARHGDIA,ARHGEF10,ARHGEF11,ARHGEF12,ARHGEF4,ARHGEF6,ARHGEF7,ARHGEF9,ARID1A,AR
ID1B,ARID2,ARID4A,ARID4B,ARID5A,ARIH1,ARL11,ARL13B,ARL14EP,ARL2BP,ARL3,ARL6,ARL6IP1,A
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IP,ASL,ASMT,ASMTL,ASNS,ASPA,ASPH,ASPM,ASPN,ASPRV1,ASPSCR1,ASS1,ASTN2,ASXL1,ASXL3,ATA
D3A,ATAD3B,ATCAY,ATF1,ATF3,ATF5,ATF6,ATG16L1,ATG7,ATIC,ATL1,ATL3,ATM,ATN1,ATOH7,ATP
10A,ATP10D,ATP11B,ATP13A2,ATP13A4,ATP13A5,ATP1A1,ATP1A2,ATP1A3,ATP1B1,ATP1B4,ATP2A1,
ATP2A2,ATP2A3,ATP2B2,ATP2B3,ATP2B4,ATP2C1,ATP5A1,ATP5B,ATP5C1,ATP5E,ATP5G1,ATP5G2,A
TP5G3,ATP5I,ATP5J,ATP5O,ATP6AP2,ATP6V0A1,ATP6V0A2,ATP6V0A4,ATP6V0C,ATP6V1B1,ATP6V1B
2,ATP7A,ATP7B,ATP8A2,ATP8B1,ATPAF2,ATR,ATRIP,ATRN,ATRNL1,ATRX,ATXN1,ATXN10,ATXN2,AT
XN3,ATXN3L,ATXN7,ATXN8OS,AUH,AUP1,AURKA,AURKB,AURKC,AUTS2,AVP,AVPR1A,AVPR1B,AVP
R2,AXIN1,AXIN2,AXL,AZIN2,B2M,B3GALNT1,B3GALNT2,B3GALT1,B3GALT2,B3GALT5,B3GALT6,B3G
AT1,B3GAT2,B3GAT3,B3GLCT,B3GNT2,B3GNT3,B3GNT4,B3GNT5,B3GNT6,B3GNT7,B3GNT8,B4GALN
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ALT7,B4GAT1,B9D1,B9D2,BAALC,BAAT,BABAM1,BACE1,BACH1,BAG3,BAG6,BANF1,BANK1,BAP1,BA
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BTC,BTD,BTK,BTLA,BTN1A1,BTN2A1,BTNL2,BTRC,BUB1,BUB1B,BUB3,BVES,C11orf40,C12orf10,C12o

rf4,C12orf57,C12orf65,C12orf66,C14orf2,C15orf41,C15orf62,C16orf58,C18orf8,C19orf12,C1GALT1,C1G
ALT1C1,C1orf127,C1QA,C1QB,C1QC,C1QTNF5,C1R,C1S,C2,C21orf2,C21orf59,C21orf91,C2CD3,C2CD
5,C2orf42,C2orf71,C2orf80,C3,C3AR1,C3orf35,C4A,C4B,C4BPA,C4orf19,C5,C5AR2,C5orf42,C6,C6orf15,
C7,C7orf43,C8A,C8B,C8orf37,C9,C9orf72,CA1,CA12,CA2,CA4,CA5A,CA6,CA8,CABIN1,CABP2,CABP4,C
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K4,CAMKK1,CAMKK2,CAMKMT,CAMP,CAMSAP2,CAMTA1,CAMTA2,CANT1,CAPN1,CAPN10,CAPN12
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DC90B,CCHCR1,CCK,CCKAR,CCKBR,CCL11,CCL13,CCL17,CCL2,CCL22,CCL26,CCL3,CCL3L1,CCL4
L1,CCL5,CCL7,CCM2,CCNA2,CCND1,CCND2,CCND3,CCNE1,CCNH,CCNO,CCNQ,CCNT2,CCPG1,CC
R1,CCR2,CCR3,CCR5,CCR6,CCR7,CCRL2,CCSER1,CCT5,CCT7,CD109,CD14,CD151,CD177,CD19,CD1
A,CD1E,CD200,CD207,CD209,CD22,CD226,CD24,CD244,CD247,CD27,CD2AP,CD320,CD36,CD38,CD
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K5RAP2,CDK5RAP3,CDK6,CDK7,CDK8,CDKL3,CDKL5,CDKN1A,CDKN1B,CDKN1C,CDKN2A,CDKN2
AIP,CDKN2B,CDKN2B-AS1, CDKN2C, CDON, CDSN, CDT1, CDX1, CDX2, CDY1, CDY2A, CDYL,
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CEP63,CEP68,CEP83,CEP85L,CEP89,CER1,CERKL,CERS3,CERS6,CES1,CES2,CETN2,CETP,CFAP53,
CFAP57,CFB,CFC1,CFD,CFH,CFHR1,CFHR2,CFHR3,CFHR4,CFHR5,CFI,CFL1,CFL2,CFLAR,CFP,CF
TR,CGA,CGB3,CGNL1,CHAF1B,CHAMP1,CHAT,CHCHD10,CHD1,CHD1L,CHD2,CHD3,CHD4,CHD6,C
HD7,CHD8,CHDH,CHEK1,CHEK2,CHFR,CHGA,CHGB,CHI3L1,CHI3L2,CHIA,CHIC2,CHIT1,CHKB,CH
L1,CHM,CHMP1A,CHMP2B,CHMP4B,CHN1,CHPF,CHPF2,CHRD,CHRDL1,CHRFAM7A,CHRM1,CHR
M2,CHRM3,CHRNA1,CHRNA2,CHRNA3,CHRNA4,CHRNA5,CHRNA7,CHRNA9,CHRNB1,CHRNB2,CHR
NB3,CHRNB4,CHRND,CHRNE,CHRNG,CHST14,CHST3,CHST6,CHST7,CHST8,CHSY1,CHSY3,CHUK,CI
AO1,CIB2,CIC,CIDEA,CIDEC,CIITA,CILP,CISD2,CISH,CITED2,CIZ1,CKAP2L,CKM,CLASP2,CLCA1,CL
CA2,CLCF1,CLCN1,CLCN2,CLCN3,CLCN4,CLCN5,CLCN6,CLCN7,CLCNKA,CLCNKB,CLDN1,CLDN14,
CLDN16,CLDN19,CLDN23,CLEC10A,CLEC11A,CLEC2D,CLEC3B,CLEC4D,CLEC4E,CLEC4M,CLEC7A,
CLHC1,CLIC2,CLIC5,CLIP1,CLIP2,CLK1,CLK2,CLMP,CLN3,CLN5,CLN6,CLN8,CLNK,CLOCK,CLP1,C
LPB,CLPP,CLPS,CLPTM1,CLPTM1L,CLRN1,CLSTN1,CLSTN2,CLTCL1,CLU,CLUL1,CLYBL,CMA1,CMI
P,CMPK1,CNBP,CNDP1,CNDP2,CNGA1,CNGA3,CNGB1,CNGB3,CNKSR1,CNKSR2,CNN2,CNNM2,CNN
M4,CNOT3,CNOT4,CNPY3,CNR1,CNR2,CNTF,CNTLN,CNTN1,CNTN2,CNTN4,CNTN6,CNTNAP1,CNTN
AP2,CNTNAP4,CNTNAP5,COA1,COA5,COA6,COASY,COCH,COG1,COG2,COG3,COG4,COG5,COG6,C
OG7,COG8,COL10A1,COL11A1,COL11A2,COL12A1,COL15A1,COL17A1,COL18A1,COL1A1,COL1A2,C
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COL4A6,COL5A1,COL5A2,COL6A1,COL6A2,COL6A3,COL6A4P2,COL6A5,COL6A6,COL7A1,COL8A2,C
OL9A1,COL9A2,COL9A3,COLEC11,COLQ,COMMD1,COMP,COMT,COPS2,COQ2,COQ4,COQ5,COQ6,
COQ8A,COQ8B,COQ9,CORIN,CORO1A,COX10,COX14,COX15,COX20,COX4I1,COX4I2,COX5A,COX5B
,COX6A1,COX6B1,COX6C,COX7A1,COX7A2,COX7B,COX7B2,COX7C,CP,CPA1,CPA4,CPA6,CPB2,CPE
,CPLX2,CPN1,CPOX,CPQ,CPS1,CPT1A,CPT1B,CPT1C,CPT2,CPXCR1,CPZ,CR1,CR2,CRADD,CRAT,CR
B1,CRB2,CRBN,CREB1,CREB3,CREB3L1,CREB3L3,CREBBP,CRELD1,CRELD2,CRH,CRHR1,CRIM1,CR
IPT,CRISP2,CRK,CRKL,CRLF1,CRMP1,CROCC,CRP,CRTAP,CRTC1,CRX,CRY1,CRY2,CRYAA,CRYAB,C
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WF19L1,CX3CL1,CX3CR1,CXCL10,CXCL11,CXCL12,CXCL16,CXCL5,CXCL8,CXCR1,CXCR3,CXCR4,C

XCR6,CYB5A,CYB5R3,CYB5R4,CYBA,CYBB,CYBRD1,CYC1,CYCS,CYFIP1,CYLD,CYP11A1,CYP11B1,CY
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DX20,DDX25,DDX39B,DDX3X,DDX3Y,DDX47,DDX5,DDX53,DDX58,DDX59,DEAF1,DEC1,DECR1,DE
F6,DEFB1,DEFB124,DEFB126,DEFB4A,DEK,DENND1A,DENND5A,DENR,DEPDC5,DES,DESI2,DGAT
1,DGAT2L6,DGCR2,DGCR5,DGCR6,DGCR8,DGKD,DGKE,DGUOK,DHCR24,DHCR7,DHDDS,DHFR,D
HH,DHODH,DHRS4L1,DHTKD1,DHX16,DHX36,DHX37,DHX38,DIABLO,DIAPH1,DIAPH2,DIAPH3,DI
CER1,DIO1,DIO2,DIP2A,DIP2B,DIP2C,DIRC2,DIS3L2,DISC1,DISP1,DKC1,DKK1,DKK2,DKK3,DKK4,D
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MT3L,DNTT,DOC2A,DOCK3,DOCK4,DOCK6,DOCK7,DOCK8,DOCK9,DOK1,DOK2,DOK5,DOK7,DOL
K,DOLPP1,DOT1L,DPAGT1,DPCD,DPH1,DPM1,DPM2,DPM3,DPP10,DPP3,DPP4,DPP6,DPY19L2,DP
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UOXA2,DUSP15,DUSP22,DUSP23,DUSP3,DUSP6,DUT,DUX4,DUX4L3,DVL1,DVL2,DXO,DYM,DYNAP,
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E1,ECE2,ECEL1,ECHS1,ECI1,ECM1,ECM2,ECSIT,EDA,EDA2R,EDAR,EDARADD,EDN1,EDN2,EDN3,E
DNRA,EDNRB,EDRF1,EEF1A2,EEF1B2,EEF2,EEF2K,EFCAB13,EFCAB5,EFEMP1,EFEMP2,EFHC1,EF
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G4,LILRA3,LIM2,LIMK1,LIMS2,LIN28A,LIN28B,LIN7A,LINGO2,LINS1,LIPA,LIPC,LIPE,LIPG,LIPH,LIPI
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