HELLENIC ACCREDITATION SYSTEM

Annex G1/12 to the Certificate No. **1105**-4

SCOPE of ACCREDITATION

of the

Clinical Laboratory

of

NEOSCREEN Ltd., Laboratory of neo- & pre- natal testing

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
Chemical Testing		
1. Dried blood spots (Guthrie cards)	1. Semi-quantitation of aminoacids (Phe, Leu, Met, Tyr, Val, Cit) & acylocarnitines (C3, C4, C5, C6, C8, C14)	*Method (MET 102)* via FIA-ESI-MS/MS based on literature Clin. Chem. 49 (2003) 1797-1817/ EQ110: MS / MS Detector, API Model 4000 M.102 version 19 *DETERMINATION OF AMINOACIDS AND ACYLOKARNITES IN BLOOD SPOTS USING A MASS SPECTROMETER*
	2. Detection of acylocarnitines (C0, C2, C10, C16, C18, C3DC, C5DC, C5OH) for diagnostic purposes	*Method (MET 102)* via FIA-ESI-MS/MS based on literature Clin. Chem. 49 (2003) 1797-1817/EQ110: MS / MS Detector, API Model 4000 (ThermoScientific) M.102 version 19 *DETERMINATION OF AMINOACIDS AND ACYLOKARNITES IN BLOOD SPOTS USING A MASS SPECTROMETER*

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
Immunochemical Assays		
2. Dried blood spots (Guthrie cards)	1. Semi-quantitative determination of 17- hydroxy progesterone	Immunochemical time-resoved fluorescence method, AUTODELFIA kit & DELFIA kit, PerkinElmer* / EQ16: Multilabel Plate Counters VICTOR 3V & EQ17: WALLAC DELFIA WASHER M.103 version 8 *DETERMINATION METHOD 17a - OH - PROGESTERONE ON BLOOD DRIVE ON PAPER USING AutoDELFIA & DELFIA NEONATAL KIT*
	2. Semi-quantitative determination of immunoreactive trypsinogen (IRT)	Immunochemical time resoved fluorescence method, AUTODELFIA kit & DELFIA kit, PerkinElmer* / EQ16: Multilabel Plate Counters VICTOR 3V & EQ17: WALLAC DELFIA WASHER M.104 version 7 *IRT DETERMINATION METHOD ON BLOOD DRIVE ON PAPER USING AUTODELFIA & DELFIA NEONATAL KIT*
Molecular Testing		
1. Whole blood/Buccal swabs/Amniotic Fluid/ Chorionic Villi	1. Detection of mutations of the *CFTR* (Cystic Fibrosis transmembrane conductance Regulator) gene i) Full Sequencing (Sanger) ii) Full Sequencing (NGS) iii) 186 mutations (CF89%)/320 mutations (CF90%) iv) 1 mutation *p.F508del*	*DNA extraction from whole blood for all the following procedures using TIANLONG Libex Nucleic Acid Extraction System (EQ415) automated equipment following internal method M.145. DNA extraction from whole blood for all the following procedures using MAGCORE SUPER Nucleid acid isolation system (EQ438) following internal method M.152). DNA extraction from whole blood, Buccal swabs/Amniotic Fluid/ Chorionic Villi using a non-automated procedure (M.131) with NucleoSpin Tissue kit,*

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
1. Whole blood/Buccal swabs/Amniotic Fluid/ Chorionic Villi (continued)		*MACHEREY-NAGEL.* *i)Method (METH 136*), utilization of thermal cycler (EQ 297, Applied Biosystems, EQ201, Applied Biosystems, EQ 140 PCR 2720) for library preparation with direct identification of the DNA sequence on EQ119 (genetic analyzer ABI3130xl) and EQ437 (genetic analyser SEQ STUDIO) and result analysis via software SEQUENCE Pilot – SEQPATIENT, JSI medical systems. M.136 version 13 *MULTIPLE GENE SEQUENCE IDENTIFICATION DIAGNOSTIC TEST USING THE SANGER SEQUENCING METHOD* ii & iii) Internal method (M.151_NGS_DEVYSER), using multiplex PCR for amplification all regions of CFTR gene, following indexing and library constractions using PCR machines (EQ297, Applied Biosystems), sequencing in NGS platforms EQ129 MiSeq (Illumina) and analysis via software SEQUENCE Pilot – SEQNEXT, JSI medical systems. M.151 version 1 DIAGNOSTIC ASSAY SIMULTANEOUS DETECTION OF MUTATIONS OF CFTR GENE USING THE TECHNOLOGY OF MASSIVE PARALLEL SEQUENCING (NGS) WITH THE USE OF MiSeq (ILLUMINA) PLATFORM WITH Devyser CFTR NGS, CE-IVD. iv) a. *Method (METH* 118) with the End Point Genotyping technique in EQ120 (LC480II, Roche)

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
1. Whole blood/Buccal swabs/Amniotic Fluid/ Chorionic Villi (continued)		M.118 version 13 *GENETIC DIAGNOSIS TEST FOR GENOTYPING OF FACTORS FORPREODISPOSITION TO THROMVOFILIA (14 MUTATIONS), AND 1 MUTATION OF THE CFTR GENE p.F508del (TaqMan assays)* (iv) b. *Method (METH 136*) by direct identification of the exon DNA sequence identifying the *p.F508del* mutation in EQ119 (ABI3130xl genetic analyzer) and EQ437 (genetic analyser SEQ STUDIO), utilization of thermal cycler, EQ 297 Applied Biosystems, EQ201, Applied Biosystems, EQ 140 PCR 2720) for library preparation and result analysis via software SEQUENCE Pilot – SEQPATIENT, JSI medical systems. M.136 version 13 *Multiple Gene Sequence Identification Diagnostic Test Using the Sanger Sequencing Method*

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
2. Whole blood/Buccal swabs/Saliva/Amniotic Fluid/ Chorionic Villi	1. Detection of deletion of exons 7 & 8 of the *SMN1* gene 2. Detection of large rearrangements in BRCA1 & BRCA2 genes	*DNA extraction from whole blood using MAGCORE SUPER Nucleid acid isolation system (EQ438) following internal method M.152). DNA extraction from whole blood, Buccal swabs/Amniotic Fluid/ Chorionic Villi using a non-automated procedure (M.131) with NucleoSpin Tissue kit, MACHEREY-NAGEL.* Manufacturer's Method (METH 130) CE-IVD MLPA kit P060 (MRC Holland)*, CE-IVD MLPA kit P002 BRCA1 & P045 BRCA2 (MRC Holland)* utilization of thermal cycler (EQ434, Applied Biosystems, EQ4345, Applied Biosystems), fragment analysis on EQ119 (genetic analyzer ABI3130xl) and EQ437 (genetic analysesr SEQ STUDIO) and software result analysis Coffalyser.Net™, MRC Holland M.130 version 18 *Gene Detection Diagnostic Test with the use of MLPA (Multiplex Ligation Dependent Probe Amplification)*
3. Whole Blood	1. Detection of mutations in the *BRCA1* & *BRCA2* (Breast Cancer susceptibility genes 1 & 2) genes	*DNA extraction from whole blood for all the following procedures using TIANLONG Libex Nucleic Acid Extraction System (EQ415) automated equipment following internal method M.145. DNA extraction from whole blood for all the following procedures using MAGCORE SUPER Nucleid acid isolation system (EQ438) following internal method M.152). DNA extraction from whole blood using a non-automated procedure (M.131) with NucleoSpin Tissue kit, MACHEREY-NAGEL* *Method (METH 135)* via Amplicon PCR-Massive Parallel Sequencing with xGen IDT amplicon panel, utilization of thermal cycler (EQ201, Applied Biosystems) for library preparation, sequencing on NGS platforms EQ129 and analysis via software SEQUENCE Pilot – SEQNEXT, JSI medical

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
3. Whole Blood (continued)		systems. M.135 version 10 DIAGNOSTIC ASSAY SIMULTANEOUS DETECTION OF MUTATIONS IN MULTIPLE GENES RELATED to specific clinical MODULE USING THE TECHNOLOGY OF MASSIVE PARALLEL SEQUENCING (NGS) IN MiSeq PLATFORM (ILLUMINA) WITH THE USE OF *xGen ™ Amplicon™ Panels (Integraded DNA Technologies, IDT).*
4. Whole blood/Buccal swabs	1. Detection of the following mutations in genes associated with the coagulation (thrombotic) cascade and the apolipoprotein metabolism: FV (G1691A), FII (G20210A), APOB (R3500Q), ApoE (E2, E3, E4), MTHFR C677T, MTHFR A1298C, ß-Fibrinogen -455 G-A, Factor XIII V34L, PAI-1 4G/5G, GPIIIa L33P (HPA-1),GPIa (C807T)	*DNA extraction from whole blood for all the following procedures using TIANLONG Libex Nucleic Acid Extraction System (EQ415) automated equipment following internal method M.145. DNA extraction from whole blood using MAGCORE SUPER Nucleid acid isolation system (EQ438) following internal method M.152). DNA extraction from whole blood, Buccal swabs using a non-automated procedure (M.131) with NucleoSpin Tissue kit, MACHEREY-NAGEL..* *Method (METH* 118) via REAL TIME PCR (endpoint genotyping) on EQ120 (LC480II, Roche) M.118 version 13 *GENETIC DIAGNOSIS TEST FOR GENOTYPING OF FACTORS FORPREODISPOSITION TO THROMVOFILIA (14 MUTATIONS), AND 1 MUTATION OF THE CFTR GENE p.F508del (TaqMan assays)*
DRYLAB		
5.FASTQ files	Bioinformatic analysis of Whole Exome Sequencing (WES) data for the detection of Single Nucleotide Variants (SNVs), small insertions/deletions (indels), and Copy Number Variants (CNVs) in genes associated with and included in the following diagnos-	M.155 version 1 Receipt of FASTQ files and sequencing data quality assessment using the fastp software. Read alignment to the human reference genome is performed using the BWA-MEM algorithm, followed by processing of the alignment files according to the internal method.

Materials / Products tested	Types of test / Properties measured	Applied methods / Techniques used
5.FASTQ files (continued)	tic panels: • Hereditary Breast and Ovarian Cancer (26 genes) • Hereditary Cancer Predisposition Syndromes (67 genes) • Carrier Screening for Monogenic Disorders (2,250 genes) • Hereditary Neurological Disorders (1,904 genes) • Genetic Newborn Screening (612 genes) **The complete gene composition of each panel is provided in the Appendix, as defined in the current approved version of the internal method.*	Detection of Single Nucleotide Variants (SNVs) and small insertions/deletions (indels) is performed using the GATK software, followed by variant annotation with the Ensembl Variant Effect Predictor (VEP). Variants are clinically evaluated and classified within the NSClinical environment in accordance with the current ACMG/AMP guidelines, taking into consideration the available scientific literature and the databases used by the laboratory. Finally, the genetic test report is prepared, reviewed, and issued.
6.FASTQ files	Bioinformatic analysis of Whole Genome Sequencing (WGS) data for the detection of Single Nucleotide Variants (SNVs), small insertions/ deletions (indels), and Copy Number Variants (CNVs) in genes associated with and included in the following diagnostic panels: • Hereditary Breast and Ovarian Cancer (26 genes) • Hereditary Cancer Predisposition Syndromes (67 genes) • Carrier Screening for Monogenic Disorders (2,250 genes) • Hereditary Neurological Disorders (1,904 genes) • Genetic Newborn Screening (612 genes) **The complete gene composition of each panel is provided in the Appendix, as defined in the current approved version of the internal method.*	*M.155* *version 1* Receipt of FASTQ files and sequencing data quality assessment using the fastp software. Read alignment to the human reference genome is performed using the BWA-MEM algorithm, followed by processing of the alignment files according to the internal method. Detection of Single Nucleotide Variants (SNVs) and small insertions/deletions (indels) is performed using the GATK software, followed by variant annotation with the Ensembl Variant Effect Predictor (VEP). Variants are clinically evaluated and classified within the NSClinical environment in accordance with the current ACMG/AMP guidelines, taking into consideration the available scientific literature and the databases used by the laboratory. Finally, the genetic test report is prepared, reviewed, and issued.

**The reference to the analyzer/kit points out to the particular method & protocol according to manufacturer's instructions*

Place of assessment: **Permanent Laboratory Facilities, Pentelis Avenue & Voreiou Hpeirou 1-3**

P.O.15235, Vrilissia, Attiki, Greece.

Primary Sample Collection: **Permanent Laboratory Facilities, Pentelis Avenue & Voreiou Hpeirou 1-3**

P.O.15235, Vrilissia, Attiki, Greece.

Authorized signatories: **Y.L. Loukas, K. Anagnostopoulou, E. Molou, S. Antonopoulou, A. Poulopoulou, C. Gavalas, M. Alvanou.**

This scope of Accreditation replaces the previous one dated 17.02.2026.

The Accreditation Certificate No. **1105**-4, to ELOT EN ISO 15189:2022, is valid until 22.08.2030.

Athens, 30th of July 2026

Konstantinou Evangelos Apostolos
CEO of ESYD

Appendix

Hereditary Breast and Ovarian Cancer (26 genes)

BRCA1, BRCA2, CHEK2, PALB2, BRIP1, TP53, PTEN, STK11, CDH1, ATM, BARD1, MLH1, MRE11A, MSH2, MSH6, MUTYH, NBN, PMS1, PMS2, DICER1, RAD51C, RAD51D, NF1, EPCAM, SMARCA4, CDK12

Hereditary Cancer Predisposition Syndromes (67 genes)

PHOX2B, SDHA, STK11, ALK, APC, ATM, ATR, AXIN2, BAP1, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDK4, CDK12, CDKN2A, CHEK2, CTNNA1, DICER1, FANCM, FH, FLCN, GEN1, GREM1, HOXB13, MEN1, MET, MITF, MLH1, MLH3, MSH2, EPCAM, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NTHL1, PALB2, PIK3CA, PMS2, POLD1, POLE, POT1, PRKAR1A, PTCH1, PTEN, RAD51B, RAD51C, RAD51D, RB1, RECQL, RET, RNF43, RPS20, SDHB, SDHC, SDHD, SMAD4, SMARCA4, TP53, TSC1, TSC2, VHL

Carrier Screening for Monogenic Disorders (2,250 genes)

AAAS, AARS1, AARS2, AASS, ABAT, ABCA1, ABCA12, ABCA3, ABCA4, ABCB11, ABCB4, ABCB7, ABCC2, ABCC6, ABCC8, ABCD1, ABCD4,ABCG5, ABCG8, ABHD12, ABHD5, ACAD8, ACAD9, ACADM, ACADS, ACADSB, ACADVL, ACAT1, ACE, ACO2, ACOX1, ACOX2, ACP5, ACSF3,ACSL4, ACTA1, ACTL6B, ACY1, ADA, ADA2, ADAM17, ADAM9, ADAMTS10, ADAMTS13, ADAMTS17, ADAMTS18, ADAMTS19, ADAMTS2,ADAMTSL2, ADAMTSL4, ADAR, ADAT3, ADD3, ADGRG1, ADGRG6, ADGRV1, ADK, ADSL, ADSS1, AEBP1, AFF2, AFG3L2, AGA, AGBL5, AGK,AGL, AGPAT2, AGPS, AGRN, AGT, AGTPBP1, AGTR1, AGXT, AHCY, AHI1, AICDA, AIFM1, AIMP1, AIMP2, AIPL1, AIRE, AK1, AK2, AKR1D1,ALAD, ALB, ALDH18A1, ALDH1A3, ALDH3A2, ALDH4A1, ALDH5A1, ALDH6A1, ALDH7A1, ALDOA, ALDOB, ALG1, ALG11, ALG12, ALG13,ALG14, ALG2, ALG3, ALG6, ALG8, ALG9, ALMS1, ALOX12B, ALOXE3, ALPK3, ALPL, ALS2, ALX1, ALX3, ALX4, AMACR, AMBN, AMER1, AMH,AMHR2, AMN, AMPD1, AMPD2, AMT, ANGPTL3, ANKS6, ANO10, ANO5, ANOS1, ANTXR1, ANTXR2, AP1B1, AP1S1, AP1S2, AP3B1,AP3B2, AP3D1, AP4B1, AP4E1, AP4M1, AP4S1, AP5Z1, APOC2, APRT, APTX, AQP2, AR, ARCN1, ARFGEF2, ARG1, ARHGDIA, ARHGEF18,ARHGEF9, ARL13B, ARL2BP, ARL3, ARL6, ARL6IP1, ARMC9, ARPC1B, ARSA, ARSB, ARSL, ARV1, ARX, ASAH1, ASCC1, ASL, ASNS, ASPA,ASPH, ASPM, ASS1, ATAD1, ATAD3A, ATCAY, ATF6, ATG7, ATIC, ATM, ATOH7, ATP13A2, ATP2A1, ATP2B3, ATP6AP2, ATP6V0A2,ATP6V0A4, ATP6V1A, ATP6V1B1, ATP6V1E1, ATP7A, ATP7B, ATP8A2, ATP8B1, ATR, ATRX, AUH, AURKC, AVPR2, B2M, B3GALNT2,B3GALT6, B3GAT3, B3GLCT, B4GALNT1, B4GALT1, B4GALT7, B4GAT1, B9D1, B9D2, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9,BCAP31, BCAT2, BCHE, BCKDHA, BCKDHB, BCKDK, BCL10, BCL11A, BCOR, BCS1L, BEST1, BFSP1, BGN, BHLHA9, BIN1, BLM, BLNK,BLOC1S3, BLOC1S6, BLTP1, BMP1, BMPER, BMPR1B, BOLA3, BPGM, BPNT2, BRAT1, BRF1, BRIP1, BRWD3, BSCL2, BSND, BTD, BTK,BUB1B, C12orf57, C19orf12, C1QA, C1QB, C1QBP, C1QC, C1S, C2, C2CD3, C3, C5, C6, C7, C8B, CA2, CA5A, CA8, CABP2, CABP4, CACNA1D,CACNA2D4, CAD, CAMTA1, CANT1, CAPN1, CAPN3, CARD11, CARD9, CARS2, CASK, CASP14, CASQ2, CASR, CAST, CAT, CAV1, CAVIN1,CBLIF, CBS, CC2D1A, CC2D2A, CCBE1, CCDC115, CCDC22, CCDC39, CCDC40, CCDC65, CCDC8, CCDC88A, CCDC88C, CCN6, CCND2, CCNO,CD19, CD247, CD27, CD2AP, CD320, CD3D, CD3E, CD3G, CD40, CD40LG, CD55, CD59, CD79A, CD79B, CD8A, CDAN1, CDC14A, CDC45,CDCA7, CDH11, CDH23, CDH3, CDHR1, CDIN1, CDK10, CDK5RAP2, CDKL5, CDON, CDSN, CDT1, CEBPE, CENPF, CEP104, CEP120, CEP135,CEP152, CEP164, CEP19, CEP290, CEP41, CEP55, CEP57, CEP63, CEP78, CEP83, CERKL, CERS1, CERS3, CFAP298, CFAP300, CFAP418,CFAP43, CFAP53, CFC1, CFD, CFH, CFI, CFL2, CFTR, CHAT, CHKB, CHM, CHMP1A, CHRDL1, CHRNA1, CHRNB1, CHRND, CHRNE, CHRNG,CHST14, CHST3, CHST6, CHSY1, CHUK, CIB2, CIITA, CILK1, CISD2, CIT, CKAP2L, CLCF1, CLCN1, CLCN2, CLCN4, CLCN5, CLCN7, CLCNKA,CLCNKB, CLDN1, CLDN10, CLDN14, CLDN16, CLDN19, CLMP, CLN3, CLN5, CLN6, CLN8, CLP1, CLPB, CLPP, CLRN1, CNGA1, CNGA3, CNGB1,CNGB3, CNKSR2, CNNM2, CNNM4, CNOT1, CNPY3, CNTNAP1, CNTNAP2, COA6, COA8, COASY, COG1, COG4, COG5, COG6, COG7, COG8, COL11A1, COL11A2, COL13A1, COL17A1, COL18A1, COL1A2, COL25A1, COL27A1, COL4A3, COL4A4, COL4A5, COL6A1, COL6A2, COL6A3, COL7A1, COL9A1, COL9A2, COL9A3, COLEC10, COLEC11, COLQ, COQ2, COQ4, COQ6, COQ8A, COQ8B, COQ9, CORO1A, COX10, COX15,COX20, COX6B1, COX7B, CP, CPAMD8, CPAP, CPE, CPLANE1, CPLX1, CPS1, CPT1A, CPT2, CR2, CRADD, CRB1, CRB2, CRBN, CREB3L1, CRIPT,CRLF1, CRPPA, CRTAP, CRYAA, CRYAB, CRYBB1, CRYBB3, CSF2RB, CSF3R, CSPP1, CSTA, CSTB, CTC1, CTDP1, CTH, CTNS, CTPS1, CTSA, CTSC,CTSD, CTSF, CTSK, CTU2, CUBN, CUL3, CUL4B, CUL7, CWC27, CWF19L1, CYB5A, CYB5R3, CYBA, CYBB, CYC1, CYP11A1, CYP11B1, CYP11B2,CYP17A1, CYP19A1, CYP1B1, CYP21A2, CYP24A1, CYP26B1, CYP26C1, CYP27A1, CYP27B1, CYP2R1, CYP2U1, CYP4F22, CYP4V2, CYP7B1,D2HGDH, DAG1, DARS1, DARS2, DBH, DBT, DCAF17, DCC, DCDC2, DCHS1, DCLRE1C, DCPS, DCX, DDB2, DDC, DDHD1, DDHD2, DDR2,DDRGK1, DDX11, DDX3X, DDX59, DEGS1,

DENND5A, DES, DGAT1, DGKE, DGUOK, DHCR24, DHCR7, DHDDS, DHFR, DHH, DHODH, DHPS,DHTKD1, DIAPH1, DIS3L2, DKC1, DLAT, DLD, DLG3, DLL1, DLL3, DMD, DMP1, DNA2, DNAAF1, DNAAF11, DNAAF19, DNAAF2, DNAAF3,DNAAF4, DNAAF5, DNAAF6, DNAH1, DNAH11, DNAH5, DNAH9, DNAI1, DNAI2, DNAJB2, DNAJC12, DNAJC19, DNAJC21, DNAJC3,DNAJC6, DNAL1, DNASE1L3, DNM1L, DNM2, DNMT3B, DOCK2, DOCK6, DOCK7, DOCK8, DOK7, DOLK, DONSON, DPAGT1, DPH1, DPM1,DPM2, DPM3, DPY19L2, DPYD, DRAM2, DRC1, DSE, DSG1, DSG4, DSP, DST, DSTYK, DTNBP1, DUOX2, DUOXA2, DYM, DYNC2H1, DYNC2I1,DYNC2I2, DYNC2LI1, DYSF, DZIP1L, EARS2, EBP, ECEL1, ECHS1, ECM1, EDA, EDAR, EDARADD, EDN1, EDN3, EDNRB, EFEMP2, EFL1, EFNB1,EGFR, EGR2, EIF2AK3, EIF2AK4, EIF2B1, EIF2B2, EIF2B3, EIF2B4, EIF2B5, EIF2S3, EIF4A3, ELAC2, ELOVL4, ELP1, ELP2, EMC1, EMD, EML1,EMP2, EMX2, ENAM, ENO3, ENPP1, ENTPD1, EOGT, EPB41, EPRS1, EPS8L2, ERAL1, ERBB3, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6,ERCC6L2, ERCC8, ERLIN1, ERLIN2, ESCO2, ESPN, ETFA, ETFB, ETFDH, ETHE1, EVC, EVC2, EXOSC3, EXOSC8, EXOSC9, EXPH5, EXTL3, EYS,F10, F11, F13A1, F13B, F2, F5, F7, F8, F9, FA2H, FAH, FAM149B1, FAM161A, FAM20A, FAM20C, FAN1, FANCA, FANCB, FANCC, FANCD2,FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FAR1, FARS2, FASLG, FASTKD2, FAT4, FBLN5, FBP1, FBXL4, FBXO7, FDXR, FECH, FERMT1,FERMT3, FEZF1, FGA, FGB, FGD1, FGD4, FGF23, FGF3, FGF8, FGG, FH, FHL1, FIG4, FKBP10, FKBP14, FKRP, FKTN, FLAD1, FLG, FLI1, FLNA,FLNB, FLVCR1, FLVCR2, FMN2, FMO3, FMR1, FOLR1, FOXE1, FOXE3, FOXN1, FOXP3, FOXRED1, FRAS1, FREM1, FREM2, FRMPD4, FRRS1L,FSHB, FSHR, FTCD, FTL, FTO, FTSJ1, FUCA1, FUT8, FXN, FYCO1, FZD6, G6PC1, G6PC3, G6PD, GAA, GABBR2, GABRB1, GABRB2, GAD1,GALC, GALE, GALK1, GALNS, GALNT3, GALT, GAMT, GAN, GAS8, GATA1, GATM, GBA1, GBA2, GBE1, GCDH, GCH1, GCK, GCM2, GCNT2,GCSH, GDAP1, GDF1, GDF5, GDF6, GDI1, GFER, GFM1, GFM2, GFPT1, GFRA1, GGCX, GH1, GHR, GHRHR, GHSR, GIPC3, GJA1, GJB1, GJB2,GJB6, GJC2, GK, GLA, GLB1, GLDC, GLDN, GLE1, GLIS2, GLIS3, GLRA1, GLRB, GLRX5, GLUL, GLYCTK, GM2A, GMPPA, GMPPB, GNAT1,GNAT2, GNB5, GNE, GNMT, GNPAT, GNPTAB, GNPTG, GNRHR, GNS, GORAB, GOSR2, GOT2, GP1BA, GP1BB, GP6, GP9, GPAA1, GPC3,GPC6, GPD1, GPHN, GPI, GPIHBP1, GPR143, GPR179, GPR68, GPSM2, GPT2, GPX4, GREB1L, GRHL2, GRHPR, GRIA3, GRID2, GRIK2, GRIN1,GRIP1, GRK1, GRM1, GRM6, GRN, GRXCR1, GSC, GSS, GTF2H5, GTPBP1, GTPBP2, GTPBP3, GUCY2C, GUCY2D, GUSB, GYG1, GYS1, GYS2,H6PD, HAAO, HACD1, HACE1, HADH, HADHA, HADHB, HAMP, HARS1, HAX1, HBA1, HBA2, HBB, HCCS, HCFC1, HDAC8, HELLS, HEPACAM,HERC1, HERC2, HES7, HESX1, HEXA, HEXB, HFE, HGD, HGF, HGSNAT, HIBCH, HIKESHI, HINT1, HJV, HK1, HLCS, HMGCL, HMGCS2, HMOX1,HMX1, HNMT, HNRNPH2, HOGA1, HOXA1, HOXB1, HOXC13, HPCA, HPD, HPDL, HPGD, HPRT1, HPS1, HPS3, HPS4, HPS5, HPS6, HPSE2,HR, HSD11B2, HSD17B10, HSD17B3, HSD17B4, HSD3B2, HSD3B7, HSPA9, HSPD1, HSPG2, HTRA1, HTRA2, HUWE1, HYAL1, HYCC1, HYDIN,HYLS1, IARS1, IARS2, IBA57, ICOS, IDH3B, IDS, IDUA, IER3IP1, IFNGR1, IFNGR2, IFT122, IFT140, IFT172, IFT27, IFT43, IFT52, IFT56, IFT80,IFT81, IGF1, IGF1R, IGFALS, IGFBP7, IGHMBP2, IGLL1, IGSF1, IHH, IKBKB, IKBKG, IL10RA, IL10RB, IL11RA, IL12B, IL12RB1, IL17RA,IL1RAPL1, IL1RN, IL21R, IL2RA, IL2RG, IL36RN, IL7R, ILDR1, IMPA1, IMPG2, INPP5E, INPP5K, INPPL1, INS, INSR, INTS1, INVS, IQCB1, IQCE,IQSEC2, IRAK4, IRF8, IRX5, ISCA1, ISCA2, ISCU, ISG15, ITCH, ITGA2B, ITGA3, ITGA6, ITGA7, ITGA8, ITGB2, ITGB3, ITGB4, ITGB6, ITK, ITPA,ITPR1, IVD, IYD, JAGN1, JAK3, JAM2, JAM3, JUP, KARS1, KATNB1, KATNIP, KCNE1, KCNJ1, KCNJ10, KCNJ11, KCNJ13, KCNV2, KCTD7,KDM5C, KDM6A, KDSR, KERA, KHDC3L, KIAA0586, KIAA0753, KIAA1549, KIDINS220, KIF14, KIF1A, KIF1C, KIF22, KIF7, KIFBP, KISS1R, KIZ,KLHL3, KLHL40, KLHL41, KLHL7, KLK4, KLKB1, KNL1, KPTN, KREMEN1, KRT10, KRT14, KRT25, KRT5, KRT85, KY, KYNU, L1CAM, L2HGDH,LAMA1, LAMA2, LAMA3, LAMB1, LAMB2, LAMB3, LAMC2, LAMC3, LAMP2, LARGE1, LARP7, LARS1, LARS2, LAS1L, LAT, LBR, LCA5, LCAT,LCK, LCT, LDHA, LDLR, LDLRAP1, LEMD2, LEP, LEPR, LFNG, LGI4, LHB, LHCGR, LHFPL5, LHX3, LIAS, LIFR, LIG4, LIM2, LINS1, LIPA, LIPE,LIPH, LIPN, LIPT1, LIPT2, LMAN1, LMBRD1, LMF1, LMOD2, LMOD3, LONP1, LOXHD1, LPAR6, LPIN1, LPIN2, LPL, LRAT, LRBA, LRIG2, LRIT3,LRMDA, LRP2, LRP4, LRP5, LRPAP1, LRPPRC, LRRC56, LRSAM1, LRTOMT, LSS, LTBP2, LTBP3, LTBP4, LYRM7, LYST, LZTFL1, LZTR1,MAB21L2, MAFB, MAG, MAGI2, MAGT1, MAK, MALT1, MAMLD1, MAN1B1, MAN2B1, MANBA, MAOA, MAP3K20, MAPKBP1, MAPT,MARS1, MARS2, MARVELD2, MASP1, MAST1, MAT1A, MATN3, MBOAT7, MBTPS2, MC2R, MCCC1, MCCC2, MCEE, MCFD2, MCIDAS,MCM3AP, MCM4, MCM9, MCOLN1, MCPH1, MDH2, MECP2, MECR, MED12, MED17, MED23, MED25, MEFV, MEGF10, MEGF8, MEOX1,MERTK, MESP2, METTL23, MFF, MFN2, MFRP, MFSD2A, MFSD8, MGAT2, MGME1, MGP, MICU1, MID1, MIPEP, MITF, MKKS, MKS1,MLC1, MLPH, MLYCD, MMAA, MMAB, MMACHC, MMADHC, MME, MMP13, MMP2, MMP20, MMP21, MMUT, MN1, MOCOS, MOCS1,MOCS2, MOGS, MPC1, MPDU1, MPDZ, MPI, MPIG6B, MPL, MPLKIP, MPO, MPV17, MPZ, MRAP, MRE11, MRPL3, MRPL44, MRPS22,MRPS34, MSH3, MSL3, MSMO1, MSRB3, MSTO1, MTFMT, MTHFD1, MTHFR, MTM1, MTMR2, MTO1, MTR, MTRFR, MTRR, MTTP, 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UNC80, UNG, UPB1, UPF3B, UQCRC2, UQCRQ, UROD, UROS, USB1, USH1C, USH1G, USH2A,USP18, USP53, USP9X, UVSSA, VAC14, VAMP1, VAMP2, VARS1, VARS2, VDR, VIPAS39, VKORC1, VLDLR, VPS13A, VPS13B, VPS13C,VPS33B, VPS41, VPS45, VPS53, VRK1, VSX2, VWF, WARS2, WAS, WASF1, WASHC5, WDPCP, WDR11, WDR19, WDR35, WDR37, WDR45,WDR45B, WDR62, WDR72, WDR73, WDR81, WFS1, WHRN, WIPF1, WLS, WNK1, WNT1, WNT10A, WNT3, WNT4, WNT7A, WRAP53,WRN, WWOX, XDH, XIAP, XPA, XPC, XPNPEP3, XRCC2, XRCC4, XYLT1, XYLT2, YARS2, YY1AP1, ZAP70, ZBTB24, ZC3H14, ZC4H2, ZDHHC9,ZFP57, ZFYVE26, ZIC3, ZMPSTE24, ZMYND10, ZNF335, ZNF408, ZNF423, ZNF469, ZNF711, ZNFX1, ZNHIT3, ZP1.

** This test enables the detection of single nucleotide variants responsible for the majority of cystic fibrosis cases (CFTR gene) and for approximately 15–30% of clinically diagnosed Duchenne muscular dystrophy cases (DMD gene).*

Hereditary Neurological Disorders (1,904 genes)

AAAS, AARS1, AARS2, AASS, ABAT, ABCA1, ABCA7, ABCB6, ABCB7, ABCC6, ABCC8, ABCD1, ABCD3, ABCD4, ABHD12, ABHD5, ACACA, ACAD8, ACAD9, ACADM,ACADS, ACADSB, ACADVL, ACAT1, ACE, ACHE, ACO2, ACOX1, ACSF3, ACSL4, ACTA1, ACTA2, ACTB, ACTG1, ACTG2, ACTL6B, ACTN4, ACVRL1, ACY1, ADA, ADAM10,ADAM22, ADAMTS10, ADAMTSL2, ADAR, ADAT3, ADCY5, ADGRG1, ADGRG6, ADGRV1, ADK, ADNP, ADPRS, ADSL, AFF2, AFF3, AFG2A, AFG3L2, AGA, AGK, AGL,AGPS, AGRN, AGTPBP1, AGXT, AHCY, AHDC1, AHI1, AIFM1, AIMP1, AIMP2, AK2, AKT3, ALAD, ALAS2, ALDH18A1, ALDH2, ALDH3A2, ALDH4A1, ALDH5A1,ALDH6A1, ALDH7A1, ALDOA, ALDOB, ALG1, ALG11, ALG12, ALG13, ALG14, ALG2, ALG3, ALG6, ALG8, ALG9, ALPL, ALS2, ALX1, ALX3, ALX4, AMACR, AMMECR1,AMPD1, AMPD2, AMT, ANG, ANK2, ANK3, ANKLE2, ANKRD11, ANO10, ANO3, ANO5, ANTXR2, ANXA11, AP1S1, AP1S2, AP2M1, AP3B1, AP3B2, AP4B1, AP4E1,AP4M1, AP4S1, AP5Z1, APOE, APP, APTX, ARFGEF2, ARG1, ARHGAP31, ARHGEF10, ARHGEF6, ARHGEF9, ARID1A, ARID1B, ARID2, ARL13B, ARL6, ARL6IP1, ARSA,ARSB, ARSL, ARV1, ARX, ASAH1, 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CEP41, CEP63, CERS1, CERT1, CFAP418, CFL2, CHAMP1, CHAT, CHCHD10, CHCHD2, CHD1, CHD2, CHD3, CHD7,CHD8, CHKB, CHL1, CHMP1A, CHMP2B, CHRNA1, CHRNA2, CHRNA4, CHRNA7, CHRNB1, CHRNB2, CHRND, CHRNE, CHRNG, CHST14, CHSY1, CIB2, CIC, CILK1,CISD2, CIT, CLCN1, CLCN2, CLCN4, CLCNKA, CLCNKB, CLDN16, CLDN19, CLN3, CLN5, CLN6, CLN8, CLP1, CLPB, CLPP, CLTC, CNBP, CNGB3, CNKSR2, CNNM2, CNPY3,CNTN4, CNTNAP1, CNTNAP2, COA5, COA6, COA7, COA8, COASY, COG1, COG4, COG5, COG6, COG7, COG8, COL11A2, COL12A1, COL13A1, COL2A1, COL4A1,COL4A2, COL6A1, COL6A2, COL6A3, COLGALT1, COLQ, COMT, COQ2, COQ4, COQ6, COQ7, COQ8A, COQ8B, COQ9, COX10, COX14, COX15, COX20, COX4I2,COX6A1, COX6B1, COX7B, CP, CPA6, CPAP, CPLANE1, CPLX1, CPOX, CPS1, CPT1A, CPT1C, CPT2, CRADD, CRBN, CREBBP, CRIPT, CRLF1, CRPPA, CRYAB, CSF1R, CSMD1, CSNK2B, CSPP1, CSRP3, CST3, CSTB, CTC1, CTCF, CTDP1, CTNNA2, CTNNA3, CTNNB1, CTNS, CTSA, CTSC, CTSD, CTSF, CTSK, CUL3, CUL4B, CUL7, CUX1,CUX2, CWF19L1, CX3CR1, CYB5A, CYB5R3, CYC1, CYCS, CYFIP2, CYLD, 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GRIA4, GRID2, GRIK2, GRIN1, GRIN2A, GRIN2B, GRIN2D, GRIP1, GRM1,GRN, GSN, GSR, GSS, GTPBP2, GTPBP3, GUF1, GUSB, GYG1, GYS1, HACE1, HADH, HADHA, HADHB, HAMP, HARS2, HAX1, HBB, HCCS, HCFC1, HCN1, HDAC4,HDAC8, HECW2, HEPACAM, HERC2, HESX1, HEXA, HEXB, HGSNAT, HIBCH, HIKESHI, HINT1, HIVEP2, HK1, HLCS, HMBS, HMGCL, HMGCS2, HNMT, HNRNPA1,HNRNPA2B1, HNRNPDL, HNRNPH2, HNRNPR, HNRNPU, HOGA1, HOXA1, HOXD10, HPCA, HPD, HPRT1, HPS1, HPS4, HPS5, HPS6, HRAS, HSD11B1, HSD17B10,HSD17B4, HSD3B2, HSPA9, HSPB1, HSPB3, HSPB8, HSPD1, HSPG2, HTRA1, HTRA2, HUWE1, HYAL1, HYCC1, HYDIN, IARS2, IBA57, IDH2, IDH3B, IDS, IDUA, IER3IP1,IFIH1, IFT140, IFT172, IFT27, IGBP1, IGF1, IGF1R, IGHMBP2, IL1RAPL1, IMPA1, INF2, INPP5E, INVS, IQSEC2, IRF2BPL, IRX5, ISCA1, ISCA2, ISCU, ITGA7, ITGB3,ITM2B, ITPA, ITPR1, IVD, JAG1, JAM2, JAM3, KANK1, KANSL1, KARS1, KAT6A, KAT6B, KAT8, KATNB1, KBTBD13, KCNA1, KCNA2, KCNB1,

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ROBO2, ROGDI, ROR2, RORA,RORB, RPGRIP1L, RPIA, RPL10, RPL35A, RPS14, RPS6KA3, RRM2B, RTN2, RTN4IP1, RTTN, RUBCN, RUSC2, RXYLT1, RYR1, SACS, SALL1, SAMD9L, SAMHD1, SARS2,SASH1, SASS6, SATB2, SBDS, SBF1, SBF2, SC5D, SCARB2, SCN10A, SCN1A, SCN1B, SCN2A, SCN3A, SCN4A, SCN8A, SCN9A, SCO1, SCO2, SCYL1, SDCCAG8, SDHA,SDHAF1, SDHAF2, SDHB, SDHD, SEC23B, SECISBP2, SELENOI, SELENON, SEMA5A, SEMA6B, SEPSECS, SERAC1, SERPINI1, SET, SETBP1, SETD1A, SETD2, SETD5,SETX, SF3B1, SFXN4, SGCA, SGCB, SGCD, SGCE, SGCG, SGSH, SH3TC2, SHANK2, SHH, SHOC2, SHROOM4, SIGMAR1, SIK1, SIL1, SIN3A, SIX3, SKI, SLC12A3, SLC12A5,SLC12A6, SLC13A3, SLC13A5, SLC16A1, SLC16A2, SLC17A5, SLC18A3, SLC19A2, SLC19A3, SLC1A1, SLC1A2, SLC1A3, SLC1A4, SLC20A2, SLC22A5, SLC25A1,SLC25A12, SLC25A13, SLC25A15, SLC25A19, SLC25A20, SLC25A22, SLC25A26, SLC25A3, SLC25A38, SLC25A4, SLC25A42, SLC25A46, SLC27A4, SLC2A1, SLC2A10,SLC30A10, SLC33A1, SLC35A1, SLC35A2, SLC35A3, SLC35C1, SLC39A14, SLC39A8, SLC3A1, SLC4A10, SLC4A4, SLC52A2, SLC52A3, 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TNK2, TNNI2, TNNT1, TNNT3, TNPO3, TOE1, TOP3A, TOR1A, TOR1AIP1, TPI1, TPK1,TPM2, TPM3, TPO, TPP1, TRAF3IP1, TRAF7, TRAK1, TRAPPC11, TRAPPC4, TRAPPC9, TREM2, TREX1, TRIM2, TRIM32, TRIM8, TRIO, TRIP12, TRIP4, TRIT1, TRMT10A,TRMT10C, TRMT5, TRMU, TRNT1, TRPC6, TRPM1, TRPM6, TRPS1, TRPV4, TRRAP, TSC1, TSC2, TSEN15, TSEN2, TSEN34, TSEN54, TSFM, TSHB, TSHR, TSPAN7,TTBK2, TTC19, TTC21B, TTC8, TTI2, TTN, TTPA, TTR, TUBA1A, TUBA4A, TUBA8, TUBB2A, TUBB2B, TUBB3, TUBB4A, TUBG1, TUBGCP4, TUBGCP6, TUFM, TUSC3,TWIST1, TWNK, TYMP, TYR, TYROBP, UBA1, UBA5, UBAP1, UBE2A, UBE3A, UBE3B, UBQLN2, UBR1, UBTF, UCHL1, UFM1, UGP2, UMPS, UNC80, UNG, UPB1,UPF3B, UQCC2, UQCRB, UQCRC2, UQCRQ, UROC1, USH2A, USP8, USP9X, US-P9Y, VAMP1, VAMP2, VANGL1, VAPB, VARS1, VARS2, VCP, VDR, VHL, VIPAS39, VLDLR,VMA21, VPS11, VPS13A, VPS13B, VPS13C, VPS13D, VPS33B, VPS35, VPS37A, VPS53, VRK1, WAC, WARS2, WASF1, WASHC4, WASHC5, WDFY3, WDR26, WDR37,WDR45, WDR45B, WDR62, WDR73, WDR81, WFS1, WNK1, WNT1, WNT5A, WNT7A, WWOX, XK, XPNPEP3, XPR1, YAP1, YARS1, YARS2, YWHAE, YWHAG, YY1,ZBTB16, ZBTB18, ZBTB20, ZBTB24, ZC3H14, ZC4H2, ZDHHC9, ZEB2, ZFYVE26, ZFYVE27, ZIC1, ZIC2, ZIC3, ZMYND11, ZNF142, ZNF292, ZNF335, ZNF41, ZNF423,ZNF699, ZNF711, ZNF81.

Genetic Newborn Screening (612 genes)

ADGRV1, CABP2, CDC14A, CDH23, CIB2, CLDN14, COCH, COL11A2, DFNB59, EDN3, EDNRB, EPS8, ESPN, ESRRB, FGF3, GIPC3, GJB2, GREB1L, GRXCR1, HGF, ILDR1, LHFPL5, LOXHD1, LRTOMT, MARVELD2, MITF, MYO15A, MYO3A, MYO6, MYO7A, OTOA, OTOF, OTOG, OTOGL, PAX3, PCDH15, PDZD7, POU3F4, PTPRQ, RDX, S1PR2, SLC26A4, SLITRK6, TECTA, TMC1, TMIE, TMPRSS3, TPRN, TRIOBP, USH1C, USH1G, USH2A, WHRN, ACTA2, ACVRL1, CALM3, ENG, FBN1, KCNH2, KCNJ2, MYH7, NKX2-5, RYR2, SMAD2, SMAD3, TGFB2, TGFB3, TGFBR1, TGFBR2, NIPAL4, AAAS, ABCC8, AIRE, AQP2, AVP, AVPR2, BSCL2, CASR, CAVIN1, CDCA8, CDKN1C, CUL3, CYB561, CYP11A1, CYP11B1, CYP11B2, CYP17A1, CYP21A2, CYP27B1, CYP2R1, DUOX2, DUOXA2, EIF2AK3, ENPP1, FGF23, FOXA2, GALNT3, GATA4, GCK, GCM2, GH1, GHR, GHRHR, GLIS3, GLUD1, GNAS, HESX1, HK1, HSD11B2, HSD3B2, IGF1, IGSF1, INS, IRS4, IYD, KCNJ11, KLHL3, LEP, LEPR, LHX3, LHX4, MC2R, MNX1, MRAP, NKX2-1, NNT, NR0B1, NR3C2, NR5A1, OTX2, PAX8, PDX1, POLE, POMC, POR, POU1F1, PROP1, RNPC3, SCNN1A, SCNN1B, SCNN1G, SGPL1, SLC26A7, SLC5A5, STAR, STX16, TBX19, TG, THRA, TPO, TRHR, TRPM6, TSHB, TSHR, TUBB1, VDR, WNK1, WNK4, AKR1D1, DGAT1, EFL1, NEUROG3, PTF1A, SAR1B, SI, SLC26A3, SLC5A1, UGT1A1, ADAMTS13, AMN, AP3B1, BRCA1, BRCA2, BRIP1, CUBN, DNAJC21, ELANE, ERCC4, F10, F13A1, F13B, F7, F9, FANCA, FANCB, FANCC, FANCD2, FANCG, FANCI, FGA, FGB, FGG, G6PC3, G6PD, GFI1, GGCX, GIF, HAX1, HBB, ITGA2B, ITGB3, MEFV, MPL, MYSM1, PALB2, PLG, RPL11, RPL15, RPL35A, RPL5, RPS10, RPS17, RPS19, RPS24, RPS26, RPS7, RUNX1, SLX4, TF, UBE2T, VKORC1, WAS, ADA, ADA2, AICDA, AK2, ARPC1B, BLNK, BTK, C17orf62, C2, C3, C5, C6, C7, C8B, C9, CARD11, CD19, CD247, CD27, CD3D, CD3E, CD3G, CD40, CD40LG, CD55, CD70, CD79A, CD79B, CDCA7, CEBPE, CFD, CFH, CFI, CFP, CIITA, CORO1A, CSF3R, CTPS1, CXCR4, CYBA, CYBB, DCLRE1C, DNASE2, DNMT3B, DOCK2, DOCK8, FCHO1, FERMT3, FOXN1, FOXP3, HELLS, ICOS, IGHM, IGLL1, IKBKB, IKZF1, IL10, IL10RA, IL10RB, IL1RN, IL21R, IL2RA, IL2RB, IL2RG, IL36RN, IL7R, IRAK4, IRF8, ITGB2, ITK, JAGN1, JAK3, LAT, LIG1, LIG4, LRBA, LYST, MAGT1, MALT1, MYD88, NCF2, NCF4, NFKBIA, NHEJ1, OAS1, ORAI1, OTULIN, PGM3, PIK3CD, PIK3R1, PNP, PRF1, PRKDC, PSTPIP1, PTPRC, RAB27A, RAC2, RAG1, RAG2, RASGRP1, RFX5, RFXANK, RFXAP, RMRP, SH2D1A, SLC39A7, SMARCD2, SP110, SRP54, STAT1, STAT3, STIM1, STK4, STX11, STXBP2, TCF3, UNC13D, VPS45, XIAP, ZAP70, ABCC6, ABCD1, ABCD4, ABCG5, ACAD9, ACADM, ACADVL, ACAT1, AGL, AHCY, ALDH4A1, ALDH7A1, ALDOB, AMACR, ARG1, ARSA, ARSB, ASL, ASS1, ATP7A, ATP7B, BCKDHA, BCKDHB, BCKDK, BTD, CA12, CA5A, CAD, CAV1, CBS, CLPP, COQ2, COQ4, COQ6, COQ8A, CPS1, CPT1A, CPT2, CYP27A1, CYP7B1, DBT, DDC, DHCR7, DHFR, DLAT, DNAJC12, ECHS1, ETFA, ETFB, ETFDH, ETHE1, FAH, FBP1, FECH, FH, FLAD1, FOLR1, FUCA1, G6PC, GAA, GALC, GALE, GALK1, GALM, GALNS, GALT, GAMT, GATM, GBA, GCDH, GCH1, GLA, GPIHBP1, GUSB, GYS2, HADH, HADHA, HADHB, HIBCH, HLCS, HMGCL, HSD3B7, IDS, IDUA, IVD, LDLR, LIPA, LMBRD1, LPL, MAN2B1, MCEE, MLYCD, MMAA, MMAB, MMACHC, MMADHC, MOCS1, MPI, MTR, MTRR, MTTP, MUT, MVK, NAGLU, NAGS, NPC1, NPC2, OAT, OTC, OXCT1, PAH, PC, PCBD1, PCCA, PCCB, PCSK9, PDHA1, PDHB, PDHX, PDP1, PGM1, PHGDH, PHKA2, PHKB, PHKG2, PKLR, PLPBP, PNPO, PPOX, PRDX1, PTS, PYGL, QDPR, SLC19A2, SLC19A3, SLC22A5, SLC25A13, SLC25A15, SLC25A19, SLC25A20, SLC25A38, SLC30A10, SLC35A2, SLC37A4, SLC39A4, SLC39A8, SLC46A1, SLC52A2, SLC52A3, SLC5A6, SLC7A7, SMPD1, TANGO2, TAT, TBL1X, TCN2, TK2, TPK1, TPP1, TRMU, UMPS, UROS, AGXT, ATP6V0A4, ATP6V1B1, BSND, COL4A3, COL4A4, COL4A5, CTNS, GRHPR, HOGA1, KCNJ1, SLC12A1, SLC4A1, WDR72, AGRN, CHAT, CHRNA1, CHRNB1, CHRND, CHRNE, COL13A1, COLQ, DOK7, DPAGT1, GLRA1, GOT2, MUSK, RAPSN, SLC18A2, SLC18A3, SLC2A1, SLC5A7, SMN1, SPR, SYT2, TH, TTPA, VAMP1, DICER1, MLH1, MSH2, MSH6, PRKAR1A, PTCH1, RB1, REST, RET, TP53, TRIM28, VHL, WT1, COL11A1, COL2A1, COL9A1, COL9A2, RPE65, ALPL, BMP1, CA2, CLCN7, COL1A1, COL1A2, CRTAP, DMP1, FAM111A, FGFR3, FKBP10, IFITM5, KDELR2, LRP5, MAFB, MESD, P3H1, PHEX, PLS3, SERPINF1, SERPINH1, SLC34A3, SNX10, TCIRG1, TMEM38B, TNFRSF11A, CFTR, BCHE, CACNA1S, LAMA2, MT-RNR1, RYR1, COL9A3, FOXE1, GATA2, GATA3, KCNQ1, MTHFD1, SAMD9, SAMD9L, SBDS, WDR1, WIPF1, XPA, XPC, APOB, CYP1B1, HNF1beta, SCN5A, SGSH, SLC12A3, TNNT2
