

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Achromatopsia	NGS	6	ATF6, CNGA3, CNGB3, GNAT2, PDE6C, PDE6H	1051
Age-related Macular Degeneration	NGS	15	ABCA4, ARMS2, C2, C3, C9, CFB, CFH, CFI, CST3, CX3CR1, ERCC6, FBLN5, HMCN1, HTRA1, RAX2	995*
	Sanger Sequencing	2/3	ARMS2, CFH	87
Aniridia	Sanger Sequencing	1	PAX6	773
	MLPA	1	PAX6	310
Anophthalmia/ Microphthalmia/ Coloboma/Anterior Segment Dysgenesis	NGS	35	ABCB6, ALDH1A3, ASPH, BCOR, B3GLCT, BMP4, CHD7, COL4A1, CYP1B1, EYA1, FOXC1, FOXE3, GDF3, GDF6, HCCS, HESX1, HMGB3, LTBP2, MAB21L2, MFRP, OTX2, PAX6, PITX2, PRSS56, RARB, RAX, SIX6, SLC38A8, SMOC1, SOX2, STRA6, TENM3, VAX1, VSX1, VSX2	1314
Autosomal Dominant Retinitis Pigmentosa	Targeted regions sequencing by NGS	16	CA4, CRX, FSCN2, IMPDH1, KLHL7, NR2E3, NRL, PRPF3, PRPF8, PRPF31, PRPH2, RHO, ROM1, RP1, RP9, TOPORS	450
	NGS	26	AIPL1, BEST1, CA4, CRX, FSCN2, GUCA1B, IMPDH1, KLHL7, NR2E3, NRL, PRKCG, PRPF3, PRPF6, PRPF8, PRPF31, PRPH2, RDH12, RGR, RHO, ROM1, RP1, RP9, RPE65, SEMA4A, SNRNP200, TOPORS	1314
	MLPA	4	IMPDH1, PRPF31, RHO, RP1	590
Autosomal Recessive Retinitis Pigmentosa	Targeted regions sequencing by NGS	28	ABCA4, AIPL1, CERKL, CLRN1, CNGA1, CNGA3, CNGB1, CNGB3, CRB1, EYS, GRK1, IMPG2, LRAT, MERTK, NR2E3, PDE6A, PDE6B, PROM1, RBP3, RDH12, RGR, RHO, RLBP1, RP1, RPE65, SAG, TULP1, USH2A	450
	NGS	56	ABCA4, AIPL1, ARL6, BEST1, C2orf71, C8ORF37, CA4, CERKL, CLRN1, CNGA1, CNGB1, CRB1, CRX, DHDDS, EYS, FAM161A, FLVCR1, FSCN2, GUCA1B, IDH3B, IMPDH1, IMPG2, LRAT, MAK, MERTK, NR2E3, NRL, PDE6A, PDE6B, PDE6G, PRCD, PROM1, PRPF3, PRPF6, PRPF8, PRPF31, PRPH2, RBP3, RDH12, RGR, RHO, RLBP1, ROM1, RP1, RP2, RP9, RPE65, RPGR (ORF15 excluded), SAG, SEMA4A, SPATA7, TOPORS, TTC8, TULP1, USH2A, ZNF513	1314
	MLPA	7	EYS, IMPDH1, PRPF31, RHO, RP1, RP2, RPGR	806
	Sanger Sequencing	1	RPE65	515

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Bardet-Biedl Syndrome, McKusick-Kaufman Syndrome, Borjeson-Forsman-Lehmann Syndrome, Alstrom Syndrome, Albright Hereditary Osteodystrophy	Targeted regions sequencing by NGS	16	ALMS1 (excluding exon 8), ARL6, BBS1, BBS2, BBS4, BBS5, BBS7, BBS9, BBS10, BBS12, GNAS, MKKS, MKS1, PHF6, TRIM32, TTC8	450
	NGS	22	ALMS1, ARL6, BBS1, BBS2, BBS4, BBS5, BBS7, BBS9, BBS10, BBS12, CCDC28B, CEP290, GNAS, LZTFL1, MKS1, MKKS, PHF6, SDCCAG8, TMEM67, TRIM32, TTC8, WDPCP	1314
Cataract	NGS	44	AGK, BCOR, BFSP1, BFSP2, CHMP4B, CRYAA, CRYAB, CRYBA1, CRYBA4, CRYBB1, CRYBB2, CRYBB3, CRYGB, CRYGC, CRYGD, CRYGS, CTDP1, EPHA2, EYA1, FTL, FYCO1, GALK1, GCNT2, GJA1, GJA3, GJA8, HSF4, LIM2, LSS, MAF, MIP, NHS, P3H2, PAX6, PITX3, PXDN, SIPA1L3, SIL1, SIX6, SLC16A12, TDRD7, UNC45B, VIM, VSX2	1314
Choroideremia	Sanger Sequencing	1	CHM	773
	MLPA	1	CHM	310
Cone-Rod Dystrophy	NGS	32	ABCA4, ADAM9, AIPL1, BEST1, CABP4, CACNA1F, CACNA2D4, CDHR1, CERKL, CNGB3, CNNM4, C8ORF37, CRX, GNAT2, GUCA1A, GUCY2D, KCNV2, PDE6C, PDE6H, PITPNM3, PROM1, PRPH2, RAB28, RAX2, RDH5, RGS9, RGS9BP, RIMS1, RPGR (ORF15 excluded), RPGRIP1, SEMA4A, UNC119	1314
Congenital Stationary Night Blindness	NGS	13	CABP4, CACNA1F, CHM, GNAT1, GRK1, GRM6, NYX, PDE6B, RDH5, RHO, SAG, SLC24A1, TRPM1	1051
Corneal Dystrophy	NGS	20	CHST6, COL5A1, COL17A1, COL8A2, CYP4V2, DCN, GSN, KRT3, KRT12, LOXHD1, PIKFYVE, PRDM5, SLC4A11, SOD1, ZEB1, ZNF469, TACSTD2, TGFBI, UBIAD1, VSX1	1051
Glaucoma	NGS	19	ACVR1, ASB10, BEST1, CANT1, COL18A1, CYP1B1, FOXC1, LMX1B, LOXL1, LTBP2, MYOC, NTF4, OPTN, PAX6, PITX2, PITX3, SBF2, SLC4A4, WDR36	1051
Leber Congenital Amaurosis	Targeted regions sequencing by NGS	15	AIPL1, CEP290, CRB1, CRX, GUCY2D, IQCB1, LCA5, LRAT, MERTK, RD3, RDH12, RPE65, RPGRIP1, SPATA7, TULP1	450
	NGS	20	AIPL1, CABP4, CEP290 (intronic position c.2991+1655A>G included), CRB1, CRX, GDF6, GUCY2D, IMPDH1, IQCB1, KCNJ13, LCA5, LRAT, NMNAT1, OTX2, RD3, RDH12, RPE65, RPGRIP1, SPATA7, TULP1	1051
	MLPA	8	AIPL1, CEP290, CRB1, CRX, GUCY2D, RDH12, RPE65, RPGRIP1	806

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Leber Hereditary Optic Neuropathy	RFLP	3/3	MT-ND1, MT-ND4, MT-ND6	176
Norrie Disease	Sanger Sequencing	1	NDP	262
Oculocutaneous Albinism, Ocular Albinism, Hermansky-Pudlak Syndrome, Chediak-Higashi Syndrome	NGS	17	AP3B1, BLOC1S3, BLOC1S6, DTNBPI, GPR143, HPS1, HPS3, HPS4, HPS5, HPS6, LRMDA, LYST, OCA2, SLC24A5, SLC45A2, TYR, TYRP1	1051
	MLPA	3	GPR143, OCA2, TYR	710
Optic Atrophy	Targeted regions sequencing by NGS	1	OPA1	450
	NGS	3	OPA1, OPA3, TMEM126A	1030
	MLPA	1	OPA1	310
Papillorenal Syndrome	Sanger Sequencing	1	PAX2	525
Retinoblastoma	NGS	1	RB1	960
	MLPA	1	RB1	310
Stargardt Disease	NGS	1	ABCA4	450
	NGS	4	ABCA4, CNGB3, ELOVL4, PROM1	1030
	MLPA	1	ABCA4	590
Usher Syndrome	Targeted regions sequencing by NGS	9	ADGRV1 (GPR98), CDH23, CLRN1, MYO7A, PCDH15, USH2A, USH1C, USH1G, WHRN (DFNB31)	450
	NGS	20	ABHD12, ADGRV1 (GPR98), CDH23, CIB2, CLRN1, COL4A6, DSPP (excluding exon 5), GIPC3, HARS, KARS, LHFPL5, LOXHD1, MYO7A, PCDH15, PDZD7, TNC, USH2A, USH1C, USH1G, WHRN (DFNB31)	1051
	MLPA	1	USH2A	590
	MLPA	1	PCDH15	310
Vitelliform Macular Dystrophy	Sanger Sequencing	1	BEST1	395
	NGS	2	BEST1, PRPH2	1030
	MLPA	2	BEST1, PRPH2	590
Vitreoretinopathy	NGS	19	BEST1, CAPN5, COL2A1, COL9A1, COL9A2, COL9A3, COL11A1, COL11A2, COL18A1, FZD4, KCNJ13, KIF11, LRP5, NDP, NR2E3, RS1, TSPAN12, VCAN, ZNF408	1334

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
X-Linked Retinitis Pigmentosa	Targeted regions sequencing by NGS, Sanger Sequencing	2	RP2, RPGR (ORF15 included)	640
	Sanger Sequencing	1	RPGR (ORF15 region only)	257
	NGS, Sanger Sequencing	3	OFD1, RP2, RPGR (ORF15 included)	1051
	MLPA	2	RP2, RPGR	590
X-Linked Retinoschisis	Sanger Sequencing	1	RS1	395
Eye Diseases	NGS	277	277 genes associated with different eye diseases	1567
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

* Clinical interpretation is not available

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Ashkenazi Jewish Diseases	Targeted regions sequencing by NGS	31	ABCC8, AGL, ASPA, BBS2, BCKDHB, BLM, BRCA1, BRCA2, CFTR, CLRN1, DHDDS, DLD, FAM161A, F11, FANCC, GBA, GJB2, G6PC, HEXA, IKBKAP, LCA5, LDLR, MAK, MCOLN1, MEFV, NEB, PCDH15, SERPINA1, SMPD1, TMEM216, TOR1A	450
	NGS	33	ABCC8, AGL, ASPA, BCKHDB, BLM, BRCA1, BRCA2, CFTR, CLRN1, CYP21A2, DLD, F11, FANCC, FKTN, GBA, GJB2, G6PC, HEXA, IKBKAP, LCA5, LDLR, LRRK2, MCOLN1, MEFV, MSH2, MSH6, NEB, PCDH15, SERPINA1, SMN1, SMPD1, TMEM216, TOR1A	1051
Carriership	NGS TruSight™ Inherited Disease	550	550 genes associated with inherited diseases	952
Cystic Fibrosis	NGS	1	CFTR	360
	MLPA	1	CFTR	310
Folate-Dependent Neural Tube Defects	Targeted mutation analysis	1	MTHFR	93
Fragile X Syndrome	Repeat Expansion/ Fragment Length Analysis	1	FMR1	262
Male Factor Infertility	Targeted regions sequencing by NGS, PCR	19	CFTR, DDX25, DNAH5, DNAH11, DNAI1, ESR2, FSHB, GNRHR, INSL3, NLRP14, PRDM9, PRM1, PRM2, PRM3, RBMXL2, RXFP2, TEKT2, USP26, UTP14C 47XXY AZF deletions	624
	Targeted regions sequencing by NGS	19	CFTR, DDX25, DNAH5, DNAH11, DNAI1, ESR2, FSHB, GNRHR, INSL3, NLRP14, PRDM9, PRM1, PRM2, PRM3, RBMXL2, RXFP2, TEKT2, USP26, UTP14C	450
	PCR	N/A	47XXY	87
	PCR	3/8 (+9 for extended analysis)	AZF deletions	87
Maternal Cell Contamination	Fragment Analysis	NA/6		87
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

* Clinical interpretation is not available

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Breast and Ovarian/ Endometrial Cancer	NGS	2	BRCA1, BRCA2	535
	MLPA	2	BRCA1, BRCA2	535
	NGS+MLPA	2	BRCA1, BRCA2	803
	NGS	23	ATM, BARD1, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, MEN1, MLH1, MRE11A, MSH2, MSH6, MUTYH, NBN, PALB2, PTCH1, PTEN, RAD50, RAD51C, RAD51D, STK11, TP53, XRCC2	1051
Cancer Predisposition	NGS	102	AIP, ALK, APC, ATM, BAP1, BARD1, BLM, BMPR1A, BRCA1, BRCA2, BRIP1, BUB1B, CDC73, CDH1, CDK4, CDKN1C, CDKN2A, CEBPA, CEP57, CHEK2, CYLD, DDB2, DICER1, DIS3L2, EGFR, EPCAM, ERCC2, ERCC3, ERCC4, ERCC5, EXT1, EXT2, EZH2, FANCA, FANCB, FANCC, FANCD2 (excluding exon 15, 16), FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FH, FLCN, GATA2, GPC3, HNF1A, HOXB13, HRAS, KIT, MAX, MEN1, MET, MITF, MLH1, MRE11A, MSH2, MSH6, MUTYH, NBN, NF1, NF2, NSD1, NTHL1, PALB2, PHOX2B, POLD1, PRF1, PRKARIA, PRSS1, PTCH1, PTEN, RAD50, RAD51C, RAD51D, RB1, RECQL4, RET, RHBDF2, RUNX1, SBDS, SDHA, SDHAF2, SDHB, SDHC, SDHD, SLX4, SMAD4, SMARCB1, STK11, SUFU, TMEM127, TP53, TSC1, TSC2, VHL, WRN, WT1, XPA, XPC, XRCC2	1051
	MLPA	1	RB1	310
	MLPA	1	WT1	310
	MLPA	2	NF1, NF2	1070
Familial Adenomatous Polyposis	Sanger Sequencing	1	APC	773
	MLPA	1	APC	310
Fanconi Anemia	NGS	17	BRCA2, BRIP1, ERCC4, FANCA, FANCB, FANCC, FANCD2 (excluding exons 15, 16), FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, PALB2, RAD51C, SLX4, XRCC2	1051
	MLPA	4	FANCA, FANCB, FANCD2, PALB2	1070
Lynch Syndrome	Sanger Sequencing	1	MLH1	515
		1	MSH2	515
		1	MSH6	515
	NGS	3	MLH1, MSH2, MSH6	1030
	MLPA	2	MLH1, MSH2	310
MLPA	1	MSH6	310	
Melanoma	NGS	3	CDK4, CDKN2A, MITF	1070
	MLPA	4	CDK4, CDKN2A, CDKN2B, MITF	590

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Microsatellite instability	Fragment Analysis	NA/6		175
MUTYH-associated Polyposis	Sanger Sequencing	1	MUTYH	257
	MLPA	1	MUTYH	310
	RFLP	1/2	MUTYH	170
Nijmegen Breakage Syndrome	Sanger Sequencing	1	NBN	788
		1/1	NBN	90
Polyposis Syndromes	NGS	6	APC, BMPR1A, MUTYH, PTEN, SMAD4, STK11	1030
	MLPA	3	BMPR1A, PTEN, SMAD4	590
	MLPA	1	STK11	310
Thyroid Cancer	NGS	10	APC, CDC73, DICER1, MEN1, PRKAR1A, PTEN, SDHB, SDHD, RET, TP53	1051
	MLPA	3	SDHB, SDHC, SDHD	590
	MLPA	1	MEN1	310
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Apolipoprotein C-II Deficiency	Sanger Sequencing	1	APOC2	267
Arrhythmia	NGS	40	ABCC9, AKAP9, ANK2, CACNA1C, CACNA2D1, CACNB2, CASQ2, CAV3, DES, DSC2, DSG2, DSP, GJA5, GPD1L, HCN4, JUP, KCNA5, KCND3, KCNE1, KCNE2, KCNE3, KCNE5 (KCNE1L), KCNH2, KCNJ2, KCNJ8, KCNQ1, LMNA, NKX2-5, NPPA, PKP2, PLN, RYR2, SCN1B, SCN2B, SCN3B, SCN4B, SCN5A, SNTA1, TGFB3, TMEM43	1338
Arrhythmogenic Right Ventricular Dysplasia/ Cardiomyopathy	NGS	14	CTNNA3, DES, DSG2, DSC2, DSP, JUP, LDB3, LMNA, PKP2, PLN, RYR2, TGFB3, TMEM43, TTN	1070
	MLPA	2	DSP, PKP2	590
Brugada Syndrome	NGS	15	CACNA1C, CACNA2D1, CACNB2, GPD1L, HCN4, KCND3, KCNE3, KCNE1L, KCNJ8, RANGRF, SCN5A, SCN1B, SCN2B, SCN3B, TRPM4	1314
	MLPA	1	SCN5A	310
Catecholaminergic Polymorphic Ventricular Tachycardia	NGS	6	ANK2, CALM1, CASQ2, KCNJ2, RYR2, TRDN	1070
Dilated Cardiomyopathy	NGS	44	ABCC9, ACTC1, ACTN2, ANKRD1, BAG3, CSRP3, CRYAB, DES, DMD, DNAJC19, DOLK, DSC2, DSG2, DSP, EMD, EYA4, GATAD1, JUP, LAMA4, LAMP2, LDB3, LMNA, MYBPC3, MYH6, MYH7, MYPN, NEXN, PKP2, PLN, RAF1, RBM20, SCN5A, SGCD, TAZ, TBX20, TCAP, TMPO, TNNC1, TNNI3, TNNT2, TPM1, TTN, TTR, VCL	1070
	MLPA	2	BAG3, TNNT2	590
Familial Hypercholesterolemia	NGS	4	APOB, LDLR, LDLRAP1, PCSK9	1030
	MLPA	1	LDLR	310
Familial Lipoprotein Lipase Deficiency	Sanger Sequencing	1	LPL	267
	MLPA	1	LPL	310
Familial Thoracic Aortic Aneurysm and Dissection and Related Syndromes	NGS	12	ACTA2, COL3A1, COL5A1, FBNI, MYH11, MYLK, SLC2A10, SMAD3, TGFB2, TGFB1, TGFB2, TGFB3	1288
	MLPA	3	FBNI, TGFB1, TGFB2	806
Hyperlipoproteinemia, type 3	Sanger Sequencing	1/2	APOE	87
Hyperlipoproteinemia, type 5	Sanger Sequencing	1	APOEA5	267
Hyperlipidemia	NGS	6	APOA5, APOC2, GPD1, GPIHBP1, LMF1, LPL	1070

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Hypertrophic Cardiomyopathy	NGS	28	ACTC1, ACTN2, CALR3, CAV3, CSRP3, GLA, JPH2, LAMP2, LDB3, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYLK2, MYOZ2, MYPN, NEXN, PLN, PRKAG2, SLC25A4, TCAP, TNNC1, TNNI3, TNNT2, TPM1, TTR, VCL	1314
	MLPA	3	MYBPC3, MYH7, TNNT2	806
Lecithin Cholesterol Acyltransferase Deficiency	Sanger Sequencing	1	LCAT	267
Long QT Syndrome	NGS	14	AKAP9, ANK2, CACNA1C, CALM1, CAV3, KCNE1, KCNE2, KCNH2, KCNJ2, KCNJ5, KCNQ1, SCN5A, SCN4B, SNTA1	1051
	MLPA	2	KCNH2, KCNQ1	590
Noonan Syndrome	NGS	13	BRAF, CBL, HRAS, KAT6B, KRAS, MAP2K1, MAP2K2, NRAS, PTPN11, RAF1, SHOC2, SOS1, SPRED1	1051
Pulmonary Arterial Hypertension	NGS	12	ACVRL1, BMPR2, BMPR1B, CAV1, EIF2AK4, ENG, FOXF1, GDF2, KCNA5, KCNK3, SMAD4, SMAD9	1338
	MLPA	2	ACVRL1, BMPR2	590
Short QT Syndrome	NGS	5	CACNA1C, CACNB2, KCNH2, KCNJ2, KCNQ1	1070
Statin-Induced Myopathy	Sanger Sequencing	1/1	SLCO1B1	87
Tangier Disease	NGS	1	ABCA1	1070
Thrombophilia	RFLP	3/4	F2, F5, MTHFR	87
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Alzheimer Disease	Sanger Sequencing	1/2	APOE	87
Amyotrophic Lateral Sclerosis	NGS	22	ALS2, ANG, CHCHD10, CHMP2B, ERBB4, FIG4, FUS, MATR3, OPTN, PFN1, SETX, SIGMAR1, SOD1, SPART, SPG11, SQSTM1, TARDBP, TBK1, TUBA4A, UBQLN2, VAPB, VCP	1070
Autism Spectrum Disorders	NGS	62	ADNP, ADSL, ANKRD11, ARX, AVPR1A, BRAF, CACNA1C, CDKL5, CHD2, CHD7, CNTNAP2, CREBBP, DHCR7, EHMT1, EN2, FOXP1, FOXP2, GABRB3, HDAC8, HOXA1, HPRT1, MAGEL2, MECP2, MED12, MID1, NHS, NIPBL, NLGN3, NLGN4X, NRXN1, NSD1, NTNG1, OXTR, PCDH19, PDE8B, POGZ, PTCHD1, PTEN, PTPN11, PQBP1, RAD21, RAI1, RELN, RPL10, SCN1A, SCN2A, SETD2, SHANK2, SHANK3, SLC6A4, SLC6A8, SLC9A9, SMC3, SMC1A, TBL1XR1, TCF4, TSC1, TSC2, UBE3A, VPS13B, ZEB2	1338
Charcot-Marie-Tooth Disease	NGS	67	AARS, AIFM1, ARSA, BSCL2, C12orf65, COX6A1, DCTN1, DHTKD1, DNAJB2, DNM2, DYNCH1, EGR2, FGD4, FIG4, GAN, GARS, GDAP1, GJB1, GNB4, HARS, HINT1, HK1, HSPB1, HSPB3, HSPB8, IGHMBP2, INF2, KARS, KIF1A, KIF5A, KIF1B, LITAF, LMNA, LRSAM1, MARS, MED25, MFN2, MORC2, MPZ, MTMR2, NAGLU, NDRG1, NGF, PDK3, PLEKHG5, PMP22, POLG, PRPS1, PRX, RAB7A, REEP1, SBF1, SBF2, SCN9A, SETX, SH3TC2, SLC5A7, SPTLC1, SPTLC2, SURF1, TFG, TRIM2, TRPV4, TYMP, VCP, WNK1, YARS	1314
	MLPA	2	KIF1B, PMP22	310
	MLPA	1	GJB1	310
	MLPA	2	MFN2, MPZ	310
	MLPA	5	GARS, HSPB1, HSBP8, RAB7A, SPTLC1	590
	MLPA	7	EGR2, GDAP1, MTMR2, NEFL, SBF2, SH3TC2, PRX	590
Congenital Myopathy and Distal Myopathy	NGS	42	ACTA1, ANO5, BAG3, BIN1, CAV3, CCDC78, CFL2, CNTN1, COL6A1, COL6A3, COL12A1, CRYAB, DES, DNAJB6, DNM2, DYSF, FHL1, FLNC, GNE, KLHL40, KLHL41, LDB3, LMOD3, MATR3, MEGF10, MICU1, MTM1, MTMR14, MYF6, MYH7, MYOT, NEB, RYR1, SELENON, STAC3, SQSTM1, TIA1, TNNT1, TPM2, TPM3, TTN, VCP	1338
	MLPA	2	MTM1, MTMR1	590
Cornelia de Lange Syndrome	NGS	9	AFF4, ANKRD11, HDAC8, KMT2A, NIPBL, RAD21, SMC3, SMC1A, TAF6	1030
	MLPA	1	NIPBL	590
Craniosynostosis	NGS, Sanger Sequencing	7	AFF4, ANKRD11, HDAC8, KMT2A, NIPBL, RAD21, SMC3, SMC1A, TAF6	1051
	MLPA	1	TWIST1	310

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Dystonia	NGS	39	ACTB, ADCY5, ANO3, ARSA, ATM, ATP1A3, ATP7B, CACNA1B, CIZ1, COL6A3, DRD2, GCDH, GCH1, GNAL, GNAO1, HPCA, KCNMA1, KCTD17, PANK2, PLA2G6, PNKD, PRKN, PRKRA, PRRT2, RELN, SGCE, SLC2A1, SLC6A3, SLC25A1, SLC30A10, SLC39A14, SPR, TAF1, TBCE, TH, THAP1, TIMM8A, TOR1A, TUBB4A	1314
	MLPA	7	ATP1A3, GCH1, PRKRA, SGCE, TH, THAP1, TOR1A	710
Epilepsy	NGS	127	AARS, ADAR, ADSL, ALDH7A1, ALG3, ALG13, ARHGEF9, ARX, ATP1A2, ATP1A3, ATP6AP2, ATRX, BRAT1, CACNA1A, CACNA1D, CACNA1H, CACNB4, CASK, CDKL5, CERS1, CHD2, CHRNA2, CHRNA4, CHRN2, CLCN2, CPA6, CSTB, DEPDC5, DNMI, DOCK7, EEF1A2, EFHC1, EPM2A, FGF12, FLNA, FOXG1, GABRA1, GABRB3, GABRD, GABRG2, GAMT, GATM, GNAO1, GOSR2, GPHN, GRIN1, GRIN2A, GRIN2B, HCN1, HUWE1, ITPA, IQSEC2, KCNA1, KCNA2, KCNB1, KCNC1, KCNMA1, KCNQ2, KCNQ3, KCNT1, KCTD7, KIAA2022, KIF1A, KIF5C, LGI1, MBD5, MCCC1, MECP2, MEF2C, MOCS1, MOCS2, MTOR, NECAPI, NHLRC1, NRXN1, PCDH19, PIK3R2, PIGA, PIGO, PIGT, PLCB1, PNKP, PNPO, POLG, PRICKLE1, PRRT2, PURA, RELN, ROGDI, SCARB2, SCN1A, SCN1B, SCN2A, SCN8A, SERPINI1, SIK1, SLC12A5, SLC13A5, SLC25A22, SLC2A1, SLC35A2, SLC35A3, SLC6A1, SLC6A8, SLC9A6, SMARCA2, SNIP1, SPATA5, SPTAN1, SRPX2, ST3GAL3, ST3GAL5, STX1B, STXBPI, SYN1, SYNGAP1, SYP, SZT2, TBCID24, TCF4, TSC1, TSC2, TUBB3, UBE3A, WDR45, WWOX, ZDHHC9	1546
	MLPA	11	CHRNA4, CHRN2, EPM2A, KCNQ1, KCNQ3, NHLRC1, PCDH19, SCN1A, SLC2A1, STXBPI, WWOX	1334
Fragile X Syndrome	Repeat Expansion/ Fragment Length Analysis	1	FMR1	262
Frontotemporal Dementia	NGS	5	CHMP2B, GRN, MAPT, TARDBP, PSEN1	1051
	MLPA	3	CRHR1, GRN, MAPT	590
Hereditary Spastic Paraplegia	NGS	34	ATL1, AP4B1, AP4E1, AP4M1, AP4S1, AP5Z1, B4GALNT1, BSCL2, CYP7B1, CYP2U1, DDHD2, ERLIN2, FA2H, GBA2, GJC2, HSPD1, KIF1A, KIF5A, L1CAM, NIPA1, PLP1, PNPLA6, REEP1, RTN2, SLC16A2, SPAST, SPG7, SPG11, SPG20, SPG21, TECPR2, VPS37A, WASHC5, ZFYVE26	1314
	Sanger Sequencing	1/1	MT-ATP6	87
	MLPA	5	ATL1, NIPA1, SPAST, SPG7, REEP1	806

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Joubert Syndrome	NGS	29	AHI1, ARL13B, B9D1, B9D2, C5orf42, CC2D2A, CEP290, CEP41, CEP104, CSPP1, INPP5E, KIF7, KIAA0556, KIAA0586, MKS1, NPHP1, OFD1, PDE6D, RPGRIP1L, TCTN1, TCTN2, TCTN3, TMEM138, TMEM216, TMEM231, TMEM67, TMEM237, TTC21B, ZNF423	1314
Leukodystrophy and Leukoencephalopathy	NGS, Sanger Sequencing	40	ABCD1, ADAR, AIMP1, ARSA, ASPA, CLCN2, CSF1R, DARS2, EARS2, EIF2B1, EIF2B2, EIF2B3, EIF2B4, EIF2B5, FAM126A, FOLR1, GALC, GFAP, GJC2, HEPACAM, HSPD1, HTRA1, L2HGDH, LMNB1, MLC1, NOTCH3, PLP1, POLR3A, POLR3B, PSAP, RNASEH2A, RNASEH2B, RNASEH2C, RNASET2, SAMHD1, SCP2, SOX10, SUMF1, TREX1, TUBB4A	1070
	MLPA	7	ABCD1, ASPA, L2HGDH, LMNB1, MLC1, NOTCH3, PLP1	1070
Limb-Girdle Muscular Dystrophy	NGS	27	ANO5, CAPN3, CAV3, DAG1, DES, DNAJB6, DYSF, FKTN, GMPPB, HNRNPDL, ISPD, LMNA, MYOT, PLEC, POMGNT1, POMK, POMT1, POMT2, SGCA, SGCB, SGCD, SGCG, TCAP, TNPO3, TRAPPC11, TRIM32, TTN	1338
	MLPA	12	ANO5, CAPN3, DYSF, FKRP, LCAV3, MNA, MYOT, SGCA, SGCB, SGCD, SGCG, ZMPSTE24	1343
Menkes Disease	Sanger Sequencing	1	ATP7A	1030
	MLPA	1	ATP7A	310
Microcephaly	NGS	24	AP4M1, ASPM, CASC5, CASK, CDK5RAP2, CENPJ, CEP63, CEP135, CEP152, EFTUD2, IER3IP1, KIF11, MCPH1, NDE1, NHEJ1, PAFAH1B1, PCNT, PNKP, POMT1, SLC25A19, STIL, TUBB2B, TUBGCP6, WDR62	1314
Mitochondrial Diseases	Sanger Sequencing/ NGS	37	Mitochondrial Genome	1030
	NGS	133	AARS2, ABCB7, ACAD9, ACADL, ACADM, ACADS, ACADVL, AFG3L2, AIFM1, ALAS2, APTX, ATPAF2, ATP5F1E, AUH, BCS1L, BOLA3, C12orf65, CISD2, COA5, COQ2, COQ6, COQ9, COQ8A, COX10, COX15, COX6B1, CPT1A, CPT2, DARS2, DGUOK, DLAT, DLD, DNAJC19, DNMI1, ETFA, ETFB, ETFDH, ETHE1, FASTKD2, FBPI, FH, FOXRED1, G6PC, GAMT, GATM, GFER, GFM1, GYS2, HARS2, HLCS, HADH, HADHA, HSPD1, ISCU, LRPPRC, MFN2, MPV17, MRPS16, MRPS22, MTFMT, MTPAP, NDUFA1, NDUFA10, NDUFA11, NDUFA12, NDUFA2, NDUFAF1, NDUFAF2, NDUFAF3, NDUFAF4, NDUFAF5, NDUFB3, NDUFB9, NDUFS1, NDUFS2, NDUFS3, NDUFS4, NDUFS6, NDUFS7, NDUFS8, NDUFV1, NDUFV2, NFU1, NUBPL, OPA1, OPA3, PC, PDHA1, PDHB, PDHX,	1314

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Mitochondrial Diseases	NGS	133	PDP1, PDSS1, PDSS2, PDX1, POLG, POLG2, PUS1, RARS2, REEP1, RRM2B, SARS2, SCO1, SCO2, SDHA, SDHAF1, SETX, SLC19A3, SLC25A20, SLC25A3, SLC25A4, SLC6A8, SLC37A4, SOD1, SPG7, SUCLA2, SUCLG1, SURF1, TACO1, TAZ, TIMM8A, TK2, TMEM126A, TMEM70, TRMU, TSFM, TTC19, TUFM, TWNK, TYMP, UQCRB, UQCRQ, WFS1, YARS2	1314
	MLPA	10	DGUOK, MPV17, POLG, POLG2, RRM2B, SLC25A4, SUCLA2, SUCLG1, TK2, TWNK	710
Mitochondrial Encephalomyopathy Lactic Acidosis and Stroke-Like Episodes (MELAS Syndrome)	Sanger Sequencing	1/1	MT-TL1	87
Neurodegeneration with Brain Iron Accumulation	NGS	10	ATP13A2, COASY, C19orf12, CP, DCAF17, FA2H, FTL, PANK2, PLA2G6, WDR45	1051
	MLPA	2	PANK2, PLA2G6	590
Parkinson's Disease	NGS	22	ADH1C, ATP13A2, ATP6AP2, ATXN2, DNAJC6, EIF4G1, FBXO7, GBA, GIGYF2, HTRA2, LRRK2, MAPT, PARK7, PINK1, PLA2G6, PRKN, SLC6A3, SNCA, SNCB, TBP (excluding exon 3), UCHL1, VPS35	1314
	MLPA	7	GCH1, LRRK2, PARK7, PINK1, PRKN, SNCA, UCHL1	710
Short Chain Acyl-CoA Dehydrogenase (SCAD) Deficiency	Sanger Sequencing	1	ACADS	515
Smith-Lemli-Opitz Syndrome	Sanger Sequencing	1	DHCR7	525
Spinocerebellar Ataxias	NGS	66	ABCB7, ABHD12, ACO2, ADCK3 (COQ8A), AFG3L2, ANO10, APTX, ATCAY, ATM, ATP8A2, CASK, CCDC88C, CLCN2, CLN5, C10orf2 (TWNK), CWF19L1, CYP27A1, DARS2, FXN, GOSR2, GRM1, DNMT1, EEF2, ELOVL4, ELOVL5, FGF14, FLVCR1, ITPR1, KCNC3, KCND3, KCNJ10, LAMA1, NOP56, NPC1, NPC2, OPHN1, PDYN, PHYH, PNKP, PNPLA6, POLG, PRKCG, RUBCN (KIAA0226), PTF1A, RNF216, SACS, SETX, SIL1, SLC9A1, SLC9A6, SLC52A2, SNX14, SPTBN2, STUB1, SYNE1, SYT14, TTBK2, TDP1, TGM6, TMEM240, TPPI, TTPA, TUBB4A, WFS1, WWOX, ZNF592	1314
	Repeat Expansion Analysis	12	ATXN1, ATXN2, ATXN3, ATXN7, ATXN8OS, ATXN10, ATN1, BEAN1, CACNA1A, FXN, NOP56, PPP2R2B, TBP	2677
Tuberous Sclerosis	NGS	2	TSC1, TSC2	803
	MLPA	2	TSC1, TSC2	590

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Very Long Chain Acyl-Coenzyme A Dehydrogenase (VLCAD) Deficiency	Sanger Sequencing		ACADVL	515
	MLPA	1	ACADVL	310
Wilson Disease	Sanger Sequencing	1	ATP7B	773
	MLPA	1	ATP7B	310
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Alport Syndrome	NGS	3	COL4A3, COL4A4, COL4A5	1030
	MLPA	1	COL4A5	590
Aminoglycoside-Induced Deafness	Sanger sequencing	1/1	MT-RNR1	87
Branchiootorenal Syndrome	NGS	3	EYA1, SIX1, SIX5	1288
	MLPA	1	EYA1	310
Jervell and Lange-Nielson Syndrome	Sanger Sequencing	2	KCNE1, KCNQ1	773
Palmoplantar Keratoderma with Deafness	Sanger Sequencing	1	GJB2	257
Pendred Syndrome	Sanger Sequencing	1	SLC26A4	773
	MLPA	1	SLC26A4	310
Sensorineural Hearing Loss	Targeted regions sequencing by NGS	11	GJB2, GJB3, GJB6, KCNQ4, MYO7A, MYO15A, MT-RNR1, MT-TS1, SLC26A4, SLC26A5, TMC1	450
	NGS	76	ACTG1, ATP2B2, ATP6V1B1, BSND, CCDC50, CDH23, CEACAM16, CIB2, CLDN14, CLRN1, COCH, COL11A2, CRYM, DFNA5, DFNB31, DFNB59, DIABLO, DIAPH1, DIAPH3, ESPN, ESRRB, EYA4, FOXI1, GIPC3, GJB2, GJB3, GJB6, GPR98, GPSM2, GRHL2, GRXCR1, HGF, ILDR1, KCNJ10, KCNQ4, LHFPL5, LOXHD1, LRTOMT, MARVELD2, MIR96, MSRB3, MYH14, MYH9, MYO15A, MYO1A, MYO3A, MYO6, MYO7A, OTOA, OTOF, PCDH15, PDZD7, POU3F4, POU4F3, PRPS1, PTPRQ, RDX, SERPINB6, SIX1, SLC17A8, SLC26A4, SLC26A5, SMPX, STRC, TECTA, TJP2, TMC1, TMIE, TMPRSS3, TPRN, TRIOBP (excluding exon 7), TRMU, USH2A, USH1C, USH1G, WFS1	1314
	Sanger Sequencing	1	GJB2	257
Stickler Syndrome	NGS	6	COL2A1, COL11A1, COL11A2, COL9A1, COL9A2, COL9A3	1030
	MLPA	1	COL11A1	590
Treacher-Collins Syndrome	NGS	3	POLR1C, POLR1D, TCOF1	1030
	MLPA	1	TCOF1	310

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Usher Syndrome	Targeted regions sequencing by NGS	9	ADGRV1 (GPR98), CDH23, CLRN1, MYO7A, PCDH15, USH2A, USH1C, USH1G, WHRN (DFNB31)	450
	NGS	20	ABHD12, ADGRV1 (GPR98), CDH23, CIB2, CLRN1, COL4A6, DSPP (excluding exon 5), GIPC3, HARS, KARS, LHFPL5, LOXHD1, MYO7A, PCDH15, PDZD7, TNC, USH2A, USH1C, USH1G, WHRN (DFNB31)	1051
	MLPA	1	USH2A	590
	MLPA	1	PCDH15	310
Waardenburg Syndrome	NGS	6	EDN3, EDNRB, MITF, PAX3, SNAI2, SOX10	1030
	MLPA	3	MITF, PAX3, SOX10	590
Zellweger Spectrum Disorders	NGS	14	PEX1, PEX2, PEX3, PEX5, PEX6, PEX7, PEX10, PEX12, PEX13, PEX14, PEX16, PEX19, PEX26, PHYH	1051
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Alpha-Thalassemia	PCR	2/7	HBA1, HBA2	91
	MLPA	2	HBA1, HBA2	310
Beta-Thalassemia, Sickle Cell Disease	Sanger Sequencing	1	HBB	257
	MLPA	1	HBB	310
Fanconi Anemia	NGS	17	BRCA2, BRIP1, ERCC4, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, PALB2, RAD51C, SLX4, XRCC2	1051
	MLPA	4	FANCA, FANCB, FANCD2, PALB2	1070
Hereditary Sideroblastic Anemia	NGS	9	ABCB7, ALAS2, GLRX5, HSPA9, PUS1, SLC19A2, SLC25A38, TRNT1, YARS2	1338
Thrombocytopenia	NGS	14	ADAMTS13, ANKRD26, CYCS, GATA1, GP1BA, GP1BB, GP9, ITGA2B, ITGB3, MASTL, MPL, MYH9, RUNX1, WAS	1070
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Brain malformations	NGS	147	ACTB, ACTG1, ADGRG1, AHI1, AKT3, AMPD2, AMT, AP4M1, ARFGEF2, ARL13B, ARX, ASPM, ATP6VOA2, ATR, ATRX, B9D1, B3GALNT2, B4GAT1, CASK, CC2D2A, CCND2, CDK5RAP2, CENPJ, CEP135, CEP290, CEP152, CEP63, CEP41, CHMP1A, CLP1, C5orf42, CREBBP, CUL4B, DCX, DHCR7, DHCR24, DLAT, DLD, DYNC1H1, ETFA, EFTUD2, ERMARD, ETFB, ETFDH, EXOSC3, FAT4, FKRP, FKTN, FLNA, GCSH, GLDC, GMPPB, GPSM2, IER3IP1, INPP5E, ISPD, KIF11, KIF7, KIF2A, KIF1BP, KIF5C, KNL1, LAMA2, LAMB1, LAMC3, LARGE1, MCPH1, MECP2, MKS1, NBN, NDE1, NHEJ1, NPHP1*, OCLN, OFD1, OPHN1, PAFAH1B1, PCNT, PDHA1, PDHB, PDHX, PDP1, PEX1, PEX2, PEX3, PEX5, PEX6, PEX10, PEX12, PEX13, PEX14, PEX16, PEX19, PEX26, PIEZO2, PIK3R2, PNKP, POMGNT1, POMGNT2, POMK, POMT1, POMT2, PQBP1, RAB18, RAB3GAP1, RAB3GAP2, RARS2, RELN, RPGRIP1L, RTTN, SEPSECS, SLC12A6, SLC25A19, SNAP29, SRD5A3, SRPX2, STIL, TBC1D20, TCF4, TCTN1, TCTN2, TCTN3, TMEM231, TMEM237, TMEM216, TMEM138, TMEM67, TMEM5, TSEN2, TSEN34, TSEN54, TTC21B, TUBA1A, TUBA8, TUBB, TUBB2A, TUBB2B, TUBB3, TUBB4A, TUBG1, TUBGCP6, VLDLR, VRK1, WASHC5, WDR62, ZEB2, ZNF423 * - 250kb deletion in the heterozygous state is not detectable with the test	1314
Craniosynostosis	NGS, Sanger Sequencing	7	FGFR1, FGFR2, FGFR3, IL11RA, MSX2, RECQL4, TWIST1	1051
	MLPA	1	TWIST1	310
Microcephaly	NGS	24	AP4M1, ASPM, CASK, CDK5RAP2, CENPJ, CEP63, CEP135, CEP152, EFTUD2, IER3IP1, KIF11, KNL1 (CASC5), MCPH1, NDE1, NHEJ1, PAFAH1B1, PCNT, PNKP, POMT1, SLC25A19, STIL, TUBB2B, TUBGCP6, WDR62	1314
Noonan Syndrome	NGS	13	BRAF, CBL, HRAS, KAT6B, KRAS, MAP2K1, MAP2K2, NRAS, PTPN11, RAF1, SHOC2, SOS1, SPRED1	1051
Skeletal Ciliopathies	NGS	23	CEP120, COMP, CSPP1, DYNC2H1, DYNC2LI1, EVC, EVC2, FGFR3, IFT43, IFT122, IFT52, IFT80, IFT140, IFT172, KIAA0586, NEK1, TCTEX1D2, TCTN3, TTC21B, WDR19, WDR34, WDR35, WDR60	1546

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Skeletal Dysplasia	NGS, Sanger Sequencing	15	ALPL, COL2A1, ESCO2, FGFR1, FGFR2, FGFR3, IL11RA, MSX2, RECQL4, ROR2, SLC26A2, SOX9, TRIP11, TWIST1, WNT5A	1051
	MLPA	1	COL2A1	310
	MLPA	1	TWIST1	310
Smith-Lemli-Opitz Syndrome	Sanger Sequencing	1	DHCR7	525
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Androgen Insensitivity Syndrome	Sanger Sequencing	1	AR	535
	MLPA	1	AR	310
Combined Pituitary Hormone Deficiency	NGS	6	HESX1, LHX3, LHX4, OTX2, POU1F1, PROP1	1070
	MLPA	7	GH1, GHRHR, HESX1, LHX3, LHX4, POU1F1, PROP1	590
Familial Hypocalciuric Hypercalcemia	Sanger Sequencing	1	CASR	535
	MLPA	1	CASR	310
Hypothyroidism and Thyroid Hormone Resistance	NGS	22	DUOX2, DUOXA2, GNAS, HESX1, IYD, NKX2-1, NKX2-5, PAX8, POU1F1, PROP1, SECISBP2, SLC5A5, SLC16A2, SLC26A4, TG, THRA, THRB, TPO, TRHR, TSHB, TSHR	1070
	MLPA	1	GNAS	310
Maturity Onset Diabetes of the Young (MODY)	NGS	15	ABCC8, BLK, CEL, GCK, HNF1A, HNF4A, HNF1B, INS, KCNJ11, KLF11, NEUROD1, PAX4, PDX1, RFX6, ZFP57	1338
	MLPA	10	CEL, GCK, HNF1A, HNF4A, HNF1B, INS, KLF11, NEUROD1, PAX4, PDX1	590
Thyroid Dysmorphogenesis	NGS	6	DUOX2, DUOXA2, IYD, SLC5A5, TG, TPO	1070
	MLPA	5	FOXE1, NKX2-1, PAX8, TPO, TSHR	590
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.

Asper Metabolic Disorders

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Citrin Deficiency	NGS	1	SLC25A13	803
Citrullinemia, type 1	NGS	21	ASS1	803
Fatty Acid Oxidation Disorder	NGS	21	ACAD9, ACADM, ACADS, ACADVL, CPT1A, CPT2, ETFA, ETFB, ETFDH, GLUD1, HADH, HADHA, HADHB, HMGCL, HMGCS2, HSD17B10, LPIN1, PPARG, SLC22A5, SLC25A20, TAZ	1070
	MLPA	1	SLC22A5	310
Glutaric Aciduria, type 1	Sanger Sequencing	1	GCDH	535
Glutaric Aciduria, type 2	Sanger Sequencing	1	EFTA	535
Glycogen Storage Disease	NGS	25	AGL, ALDOA, ENO3, FBP1, G6PC, GAA, GBE1, GYG1, GYS1, GYS2, LAMP2, LDHA, PFKM, PGAM2, PGK1, PGM1, PHKA1, PHKA2, PHKB, PHKG2, PRKAG2, PYGL, PYGM, SLC2A2, SLC37A4	1070
Hemochromatosis	NGS	5	HAMP, HFE, HFE2, SLC40A1, TFR2	1070
Lysosomal Storage Disease	NGS	50	AGA, ARSA, ARSB, ASAH1, CLN3, CLN5, CLN6, CLN8, CTNS, CTSA, CTSC, CTSD, CTSK, DNAJC5, FUCA1, GAA, GALC, GALNS, GBA, GLA, GLB1, GM2A, GNPTAB, GNPTG, GNS, GUSB, HEXA, HEXB, HGSNAT, HYAL1, IDS, IDUA, LAMP2, LIPA, MAN2B1, MANBA, MCOLN1, MFSD8, NAGA, NAGLU, NEU1, NPC1, NPC2, PPT1, PSAP, SGSH, SLC17A5, SMPD1, SUMF1, TPPI	1338
	MLPA	1	GLA	310
	MLPA	1	IDS	310
	MLPA	2	NPC1, NPC2	310
	MLPA	1	HEXA	310
Metabolic Myopathy and Rhabdomyolysis	NGS	43	ABHD5, ACAD9, ACADM, ACADVL, AGL, ALDOA, AMPD1, CAV3, CPT2, ENO3, ETFA, ETFB, ETFDH, GAA, GBE1, GYG1, GYS1, HADHA, HADHB, ISCU, LDHA, LPIN1, OPA1, OPA3, PFKM, PGAM2, PGK1, PGM1, PHKA1, PNPLA2, PRKAG2, POLG, POLG2, PYGM, RRM2B, RYR1, SLC22A5, SLC25A20, SUCLA2, SUCLA2, TAZ, TK2, TWNK (C10ORF2), TYMP	1070
Methylmalonic Aciduria and Homocystinuria	NGS	23	ABCD4, ACSF3, AMN, CBS, CD320, CUBN, GIF, IVD, LMBRD1, MCEE, MLYCD, MMAA, MMAB, MMACHC, MMADHC, MTHFR, MTR, MTRR, MUT, SUCLA2, SUCLG1, TCN1, TCN2	1070
	MLPA	1	MLYCD	310

Disease/Condition name	Method	No of detectable genes/markers	Genes	Price (EUR)
Porphyria	NGS	9	ALAD, ALAS2, CPOX, FECH, HFE, HMBS, PPOX, UROD, UROS	1070
	MLPA	7	ALAD, CPOX, FECH, HMBS, PPOX, UROD, UROS	710
Short-Chain Acyl-CoA Dehydrogenase (SCAD) Deficiency	Sanger Sequencing	1	ACADS	535
Smith Lemli Opitz Syndrome	Sanger Sequencing	1	DHCR7	525
Urea Cycle Disorder	NGS	10	ARG1, ASL, ASS1, CPS1, NAGS, OAT, OTC, SLC7A7, SLC25A13, SLC25A15	1070
	MLPA	1	OTC	310
Very Long Chain Acyl-CoA Dehydrogenase (VLCAD) Deficiency	Sanger Sequencing	1	ACADVL	535
Whole Exome Sequencing (WES)	NGS		Solo sample	1567
			Trio samples	3100
Whole Genome Sequencing (WGS)	NGS		Solo sample	4500
			Trio samples	8800

Service includes

- DNA extraction
- Genotyping
- Bioinformatic analysis of detected variants
- Detected variants available in Excel format (on request)
- Validation of phenotype/diagnosis associated known or possibly pathogenic variants
- Clinical and biological interpretation
- Results delivery by registered mail (on request)
- TAT 2-9 weeks, excl. WES and WGS 15 weeks

Online ordering, specimen requirements and shipping instructions are available at www.asperbio.com.