

בדיקות סקר גנטי מורחב - מי מגיע לך לדעת יותר!

מי בדיקת MyScreen?

הינה בדיקת סקר גנטי מורחב הנקיפה והמוראתם ביוטר לאוכלוסייה בישראל. הבדיקה מבוצעת במקומות האגניים בארץ בסטנדרטים מחמירים. מטרתה של הבדיקה להפחית את הסיכון להולמתILD חוליה. **הבדיקה כוללת בירור למעל 1200 מוטציות שכיחות-ב-389 גנים למחלות תורשתיות סוכריות בקרב האוכלוסייה הישראלית מכל העדות והמצאים (היהודים ולא היהודים).**

בדיקה מכוסות כל המוטציות למחלות בעדות ספציפיות אשר נכללו בסל הבדיקות וכן אלו שאושרו ע"י האיגוד הגנטי וטרם הוכנסו לסל הבדיקות (למעט בדיקות-X- ו-SMA- Fragile-X-). הבדיקה בירור למוטציות רבות יבוצעו בשיטה אחרת. בנוסף מכילה הבדיקה בירור למוטציות רבות לפי המלצות המכונין הגנטי אשר לא נכללות בסל הבדיקות כיוון או בבדיקות סקר המבוצעות בחו"ל. ניתן לקבל הסבר נוסף במקון הגנטי.

מי בדיקת סקר גנטי?

בדיקות סקר גנטי מזדהה האם הinker נשאית לאות מהטסמנות הגנטיות הנכללות בבדיקה. בבדיקה כלולות בדר' כלוחות רבות וכל חלה מגוון המוטציות השכיחות בישראל. המכונה "נשאות" מתיחס למצב שבו אדם בריא לחותן ונושא במתען הגנטי שלו שני/ליקי גנטי ("מוטיצה") באחד מהעתקים של גן מסוים בעוד העותק השני תקין. ההסיכוי להיות נשאה למחלת גנטית תורשתית כלשהי בקרב האוכלוסייה הישראלית מוערך ב-20%-40%. רק כאשר שני בני הזוג נמצאו נשאים לאותה מחלת קיים סיכוי של 25% לילידתILD חולה במחלקה.

ישראל קיימת תוכנית סקר גנטי מצוינית ובבדיקות רבות נכללות בסל הבדיקות (כגון Tay Sachs, CF ועוד). עם זאת, תוכנית זו מסה רק את המחלות השכיחות ביותר בהתאם לקритריונים של שכיחות המחלת וחומרתה. דוגמא לכך היא מחלת-ה-CF שבה בבדיקות כיוון רק 19 מוטציות בסל הבדיקות מטור מאות מוטציות אפשריות. בבדיקה ה-*h-cDNA* מכסה 236 מוטציות ידועות בגין CF- ובכך הסיכוי לאותר נשאים למחלת זו עולה. כמו כן מכסה הבדיקה מאות מוטציות למחלות נוספות כיוון בסל הבדיקות.

Gene	Disease		Gene	Disease		Gene	Disease		Gene	Disease	
CYP7B1	Spastic paraplegia 5A, Autosomal Recessive	357	CLCN5	Proteinuria, low molecular weight, with hypercalciuric nephrocalcinosis	322	COLQ	Myasthenic syndrome, congenital, 5	278	MMACHC	Methylmalonic aciduria and homocystinuria, cbC type	240
IBA57	Spastic paraplegia 74, Autosomal Recessive	358	MYH2	Proximal myopathy and ophthalmoplegia	323	RAPSN	Myasthenic syndrome, congenital, associated with acetylcholine receptor deficiency	279	CEP152	Microcephaly 9, primary, Autosomal Recessive	241
SLC1A4	Spastic tetraplegia, thin corpus callosum, and progressive microcephaly	359	CTSK	Pycnodysostosis	324	MEGF10	Myopathy, areflexia, respiratory distress, and dysphagia, early-onset	280	MED17	Microcephaly, postnatal progressive, with seizures and brain atrophy (IICCA)	242
DLL3	Spondylocostal dysostosis 1, Autosomal Recessive	360	INSR	Leprechaunism	325	NEB	Nemaline myopathy 2	281	TRMT10A	Microcephaly, short stature, and impaired glucose metabolism	243
ACP5	Spondyloenchondroplasia with immune dysregulation	361	PHYH	Refsum disease	326	KLHL40	Nemaline myopathy 8, Autosomal Recessive	282	STRAD	Microphthalmia	244
MATN3	Spondyloepimetaphyseal dysplasia	362	SLC4A4	Renal tubular acidosis (RTA), proximal, with ocular abnormalities and mental retardation	327	INVS	Nephronophthisis 2, infantile	283	ALDH1A3	Microphthalmia, isolated 8	245
DDR2	Spondyloepiphysial dysplasia, short limb-hand type	363	RP1	Retinitis pigmentosa 1	328	NPHS2	Nephrotic syndrome	284	RYR1	Minicore myopathy with external ophthalmoplegia	246
NUP62	Striatonigral degeneration, Infantile Bilateral Striatal Necrosis (IBSN)	364	TULP1	Retinitis pigmentosa 14	329	ARHGD1	Nephrotic syndrome type 1	285	NDUFA11	Mitochondrial complex I deficiency - NDUFA11 gene	247
LIFR	Stuve-Wiedemann syndrome/Schwartz-Jampel type 2 syndrome/LFR related	365	CERKL	Retinitis pigmentosa 26	331	SPINK5	Netherton syndrome	287	NDUFAF5	Mitochondrial complex I deficiency - NDUFA5 gene	248
HEXA	Tay-Sachs disease	366	FAM161A	Retinitis pigmentosa 28	332	CLNB	Neuronal ceroid lipofuscinosis type 8, including northern epilepsy	288	NDUFS6	Mitochondrial complex I deficiency - NDUFS6 gene	249
SLC19A2	Thiamine-responsive megaloblastic anemia syndrome	367	CNGB1	Retinitis pigmentosa 45	333	IGHMBP2	Neuronopathy, distal hereditary motor, type VI	289	NDUFS2	Mitochondrial complex I deficiency-NDUFS2 gene	250
MPL	Thrombocytopenia, congenital amegakaryocytic	368	PDE6G	Retinitis pigmentosa 57	334	G6PC3	Neutropenia, severe congenital 4, Autosomal Recessive	290	UQCRC	Mitochondrial complex III deficiency, nuclear type 4	251
HPD	Thyrosinemia type III	369	DHDDS	Retinitis pigmentosa 59	335	VPS45	Neutropenia, severe congenital, 5, Autosomal Recessive	291	DGUOK	Mitochondrial DNA depletion syndrome (hepatocerebral type)	252
SAMD9	Tumoral calcinosis, familial, normophosphatemic	370	MAK	Retinitis pigmentosa 62	336	SMPD1	Niemann-Pick disease type B, SMPD1-related	292	TYMP	Mitochondrial DNA depletion syndrome 1 (MNGIE type)	253
GALNT3	Tumoral calcinosis, hyperphosphatemic, familial	371	C8orf37	Retinitis pigmentosa 64	337	NPC1	Niemann-Pick disease type C1	293	TK2	Mitochondrial DNA depletion syndrome 2 (myopathic type)	254
FAH	Tyrosinemia, type I	372	SMARCA1	Schimke immunoosseous dysplasia	342	OTC	Ornithine transcarbamylase deficiency	294	MPV17	Mitochondrial DNA depletion syndrome 6 (hepatocerebral type)	255
CDH23	Usher Syndrome Type ID	373	KCNJ10	SESAME syndrome	343	PPIB	Osteogenesis imperfecta, type IX	295	FOXRED1	Mitochondrial encephalomyopathy complex I deficiency	256
MYO7A	Usher syndrome, type 1B	374	RAG1	Severe combined immunodeficiency, B cell-negative, RAG1-related	344	CRTP	Osteogenesis imperfecta, type VII	296	FDX1L	Mitochondrial muscle myopathy	257
USHC1	Usher syndrome, type 1C	375	RAG2	Severe combined immunodeficiency, B cell-negative, RAG2-related	345	FKBP10	Osteogenesis imperfecta, type XI	297	PUS1	Mitochondrial myopathy and sideroblastic anemia 1	258
PCDH15	Usher syndrome, type 1F	376	ADA	Severe combined immunodeficiency due to ADA deficiency	346	TCIRG1	Osteopetrosis, Autosomal Recessive 1	298	MOC51	Molybdenum cofactor deficiency A	259
USH2A	Usher syndrome, type 2A	377	DCLRE1C	Severe combined immunodeficiency, Athabaskan type	347	SNX10	Osteopetrosis, Autosomal Recessive 8	299	MOC52	Molybdenum cofactor deficiency B	260
ADGRV1	Usher syndrome, type 2C	378	POC1A	Short stature, onychodysplasia, facial dysmorphism, and hypotrichosis	348	COL11A2	Otospondylomegaphyseal dysplasia (ZW)	300	MCIDAS	Mucociliary clearance disorder	261
CLRN1	Usher syndrome, type 3A	379	SLC17A5	Sialic acid storage disorder, infantile (ISSD)	349	SLC26A4	Pendred syndrome	301	GNPTAB	Mucolipidosis III alpha/beta	262
CASQ2	Ventricular tachycardia, catecholaminergic polymorphic, 2	380	DHCR7	Smith Lemli Opitz syndrome	350	GNPTG	Mucolipidosis III gamma	263			
CRB2	Ventriculomegaly with cystic kidney disease	381	SPG11	Spastic paraplegia 11, Autosomal Recessive	351	MCOLN1	Mucolipidosis type IV - ML4	264			
EPG5	Vici syndrome	382	FA2H	Spastic paraplegia 35, Autosomal Recessive	352	SGSH	Mucopolysaccharidosis type IIIA (Sanfilippo A)	265			
RECOL2	Werner syndrome	383	AP4B1	Spastic paraplegia 47, Autosomal Recessive	353	IDUA	Mucopolysaccharidosis Ibh - Hurler syndrome	266			
ATP7B	Wilson disease	384	TECPR2	Spastic paraplegia 49, Autosomal Recessive	354	NAGLU	Mucopolysaccharidosis type IIIB (Sanfilippo B)	267			
LIPA	Wolman disease	385	VPS37A	Spastic paraplegia 53, Autosomal Recessive	355	PIGN	Multiple congenital anomalies-hypotonia-seizures syndrome 1	268			
DCAF17	Woodhouse-Sakati syndrome	386	C120RF65	Spastic paraplegia 55, Autosomal Recessive	356	CECR1	Multiple congenital anomalies-hypotonia-seizures syndrome 3	269			
XPC	Xeroderma pigmentosum, group C	387				LAMA2	Muscular dystrophy, congenital, due to partial LAMA2 deficiency	270			
ERCC2	Xeroderma pigmentosum, group D	388				PKHD1	Polyzystic kidney & hepatic disease, PKHD1-related	310			
ERCC5	Xeroderma pigmentosum, group G/ Cockayne syndrome	389				ADGRG1	Polymicrogyria, bilateral frontoparietal	311			

לפרטים נוספים והזמנת הבדיקה

יש לפנות למידע המקון הגנטי בבלתי החולים הבאים:

בילינסון 8-9377659/03 | איכילוב 03-6974704 | מעבדות זר 03-5247261

מידע נוסף על הבדיקה ניתן למצוא ב:

www.MyScreen.co.il

Gene	Disease		Gene	Disease		Gene	Disease		Gene	Disease	
			COLQ	Myasthenic syndrome, congenital, 5	278	RAPSN	Myasthenic syndrome, congenital, associated with acetylcholine receptor deficiency	279	CEP152	Microcephaly 9, primary, Autosomal Recessive	241
			MEGF10	Myopathy, areflexia, respiratory distress, and dysphagia, early-onset	280	NEB	Nemaline myopathy 2	281	MED17	Microcephaly, postnatal progressive, with seizures and brain atrophy (IICCA)	242
			KLHL40	Nemaline myopathy 8, Autosomal Recessive	282	TRMT10A	Microcephaly, short stature, and impaired glucose metabolism	283	STRAD	Microphthalmia	243
			INVS	Nephronophthisis 2, infantile	284	ALDH1A3	Microphthalmia, isolated 8	285	RYR1	Minicore myopathy with external ophthalmoplegia	244
			NPHS2	Nephrotic syndrome	286	NDUFA11	Mitochondrial complex I deficiency - NDUFA11 gene	287	NDUFAF5	Mitochondrial complex I deficiency - NDUFA5 gene	245
			NPHS1	Nephrotic syndrome type 1	288	NDUFS6	Mitochondrial complex I deficiency - NDUFS6 gene	289	NDUFS2	Mitochondrial complex I deficiency-NDUFS2 gene	250
			ARHGD1	Nephrotic syndrome type 8	290	UQCRC	Mitochondrial complex III deficiency, nuclear type 4	291	DGUOK	Mitochondrial DNA depletion syndrome (hepatocerebral type)	251
			SPINK5	Netherton syndrome	292	TYMP	Mitochondrial DNA depletion syndrome 1 (MNGIE type)	293	TK2	Mitochondrial DNA depletion syndrome 2 (myopathic type)	252
			CLNB	Neuronal ceroid lipofuscinosis type 8, including northern epilepsy	294	MPV17	Mitochondrial DNA depletion syndrome 6 (hepatocerebral type)	295	FOXRED1	Mitochondrial encephalomyopathy complex I deficiency	253
			IGHMBP2	Neuronopathy, distal hereditary motor, type VI	296	FDX1L	Mitochondrial muscle myopathy	297	PCK1	Mitochondrial myopathy and sideroblastic anemia 1	254
			G6PC3	Neutropenia, severe congenital 4, Autosomal Recessive	298	PUS1	Mitochondrial myopathy and sideroblastic anemia 1	299	COL11A2	Molybdenum cofactor deficiency A	255
			VPS45	Neutropenia, severe congenital, 5, Autosomal Recessive	300	MOC51	Molybdenum cofactor deficiency B	301	SLC26A4	Mucociliary clearance disorder	260
			SMPD1	Niemann-Pick disease type B, SMPD1-related	301	MOC52	Molybdenum cofactor deficiency C	302	ARFGEF2	Perventricular heterotopia with microcephaly	261
			TYMP	Niemann-Pick disease type C1	302	GNPTAB	Mucolipidosis III alpha/beta	303	TCIRG1	Osteopetrosis, Autosomal Recessive 1	262
			TK2	Niemann-Pick disease type C2 (MNGIE type)	304	GNPTG	Mucolipidosis III gamma	305	MPV17	Osteopetrosis imperfecta, type IX	263
			MPV17	Osteopetrosis imperfecta, type VII	305	MCOLN1	Mucolipidosis type IV - ML4	306	COL11A2	Otospondylomegaphyseal dysplasia (ZW)	264
			IDUA	Osteopetrosis imperfecta, type VII (Zellweger)	306	SGCH	Mucopolysaccharidosis type IIIB	307	GNPTB	Mucolipidosis type III gamma	265
			NAGLU	Osteopetrosis imperfecta, type IIIC (Sanfilippo B)	307	GMPPB	Mucopolysaccharidosis type IIIA (Sanfilippo A)	308	MCIDAS	Mucociliary clearance disorder	266
			PIGN	Multiple congenital anomalies-hypotonia-seizures syndrome 1	308	ISPD	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies)	309	GNPTG	Mucolipidosis III gamma	267
			CECR1	Multiple congenital anomalies-hypotonia-seizures syndrome 3	309	FKTN	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies)	310	CECR1	Polyarteritis nodosa, childhood-onset	268
			LAMA2	Muscular dystrophy, congenital, due to partial LAMA2 deficiency	310	DAG1	Muscular dystrophy, type 2B	311	PKHD1	Polycystic kidney & hepatic disease, PKHD1-related	269
			DYSF	Muscular dystrophy, limb-girdle, type 2B	311	ADGRG1	Polymicrogyria, bilateral frontoparietal	312	ADGRG1	Muscular dystrophy, type 2C (Zellweger)	270
			SGCG	Muscular dystrophy, limb-girdle, type 2C	312	GAA	Pompe (Glycogen storage disease type II)	313	EXOSC3	Pontocerebellar hypoplasia, type 1A	271
			GMPPB	Muscular dystrophy-dystroglycanopathy	313	EXOSC8	Pontocerebellar hypoplasia, type 1B	314	EXOSC3	Pontocerebellar hypoplasia, type 1B	272
			ISPD	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies)	314	EXOSC8	Pontocerebellar hypoplasia, type 1C	315	EXOSC8	Pontocerebellar hypoplasia, type 1C	273
			FKTN	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies)	315	VPS53	Pontocerebellar hypoplasia, type 2E (PCCA2)	316	VPS53	Pontocerebellar hypoplasia, type 2E (PCCA2)	274
			ADGRG1	Muscular dystrophy, type 2F	316	RARS2	Pontocerebellar hypoplasia, type 6	317	RARS2	Pontocerebellar hypoplasia, type 6	275
			GAA	Muscular dystrophy, type 2G	317	PEPD	Prolidase deficiency	318	PEPD	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 9	276
			EXOSC8	Muscular dystrophy, type 2H	318	PCCA	Propionic acidemia, PCCA-related	319	PCCA	Muscular dystrophy-dystroglycanopathy (limb-girdle), type C, 5	277
			EXOSC8	Muscular dystrophy, type 2I	319	PCCB	Propionic acidemia, PCCB-related	320	FKRP	Muscular dystrophy-dystroglycanopathy (limb-girdle), type C, 5	278

עלות בדיקת MyScreen משלמת יותר

עלות הבדיקה נמוכה בהשוואה לבדיקות שמציעות מעבדות פרטיות בארץ
ובחו"ל. לבירור פרטים יש לפנות למזכונית הגנטיים המבצעים את הבדיקה.

מי מומלץ לבצע את הבדיקה?

- זוגות המתכוננים להריון / או הקמת משפחה בעתיד, כולל זוגות שכבר נבדקו בעבר לבדיקות גנטיות אחרות
- זוגות המוצפים לתינוק
- זוגות בהם אחד מבני הזוג או שנייהם נמצאו כנשאים של תסמונת גנטית
- בעלי היסטוריה משפחתית של תסמונת גנטית המעניינים להעירק את גורמי הסיכון שלהם לפני תכנון משפחה.

מה משמעות תוצאות הבדיקה?

אם נמצא אחד מבני הזוג הוא נשא של מוטציה למחלה ספציפית פאלו שנבדוק, והשני שנבדק במקביל לא נשא למוטציות שבפאנל. הסיכון הסטטיסטי לשינויו של הזוג נמדד באמצעות ייחשכן נמוך. אם שני בני הזוג נמצאו נשאים לאותה תסמונת תופנו לעוז במקון הגנטי בו ניתן הסבר מקיים על האפשרויות העמודות בפניכם לצורך אבחון מודיק ואפשרי של המחלה בעובר (בבדיקה סיסי שלילית, דיקור מי שפיר או אבחון טרום השרתתי).

רשימת המחלות הנכללות בבדיקה:

Gene	Disease		Gene	Disease		Gene	Disease		Gene	Disease	
ACO2	Infantile cerebellar-retinal degeneration	189	AMT	Glycine encephalopathy, AMT-related	145	DOLK	Congenital disorder of glycosylation, type Im	92	BBS10	Bardet-Biedl syndrome 10	37
PLA26	Infantile neuroaxonal dystrophy 1 (INAD)	190	G6PC	Glycogen storage disease Ia - GSD1a	146	ATP6VOA2	Cutis laxa, Autosomal Recessive, type IIA	93	BBS1	Bardet-Biedl syndrome 2	38
SCN9A	Inensitivity to pain, congenital	191	SLC37A4	Glycogen storage disease Ib	147	CTH	Cystathioninuria	94	ARL6	Bardet-Biedl syndrome 3	39
NTRK1	Inensitivity to pain, congenital, with anhidrosis (CiPA)	192	AGL	Glycogen storage disease III	148	CFTF	Cystic fibrosis	95	BBS4	Bardet-Biedl syndrome 4	40
IVD	Isovaleric academia	193	PHKG2	Glycogen storage disease IXc	149	CTNS	Cystinosin, CTNS-related	96	BBS7	Bardet-Biedl syndrome 7	41
CNNM4	Jahili syndrome	194	GLB1	GM1-gangliosidosis, type I	150	STRC	Deafness, Autosomal Recessive 16	97	PTHB1	Bardet-Biedl syndrome 9	42
TMEM67	Joubert syndrome	195	NBEAL2	Gray platelet syndrome	151	GLB2	Deafness, autosomal recessive 1A	98	CLCNKB	Bartter syndrome, type 3 and Gitelman syndrome	43
CEP104	Joubert syndrome (JBTS)	196	MLPH	Griscelli syndrome, type 3	152	GLB6	Deafness, autosomal recessive 1B	99	BSND	Bartter syndrome, type 4a infantile variant with sensorineural deafness	44
TMEM216	Joubert syndrome 2	197	GH1	Growth hormone deficiency, isolated, type IA	153	MYO15A	Deafness, Autosomal Recessive 3	100	MED25	Basel-Vanagata-Smirin-Yosef syndrome	45
AHI1	Joubert syndrome-3	198	GHRHR	Growth hormone deficiency, isolated, type IB	154	DFNB59	Deafness, Autosomal Recessive 59	101	UPB1	Beute-ureidopropionate deficiency	46
FERMT1	Kindler syndrome	199	FTO	Growth retardation, developmental delay, coarse facies, and early death	155	TMC1	Deafness, Autosomal Recessive 7	102	BTD	Biotinidase deficiency	47
ROGDI	Kohlschutter-Tonz syndrome	200	CTSC	Haim-Munk syndrome	156	DFNB59	Deafness, Autosomal Recessive 76	103	CCDC174	Birk Vlodarsky PMR syndrome Hypotonia and psychomotor developmental delay	48
GALC	Krabbe disease	201	HBB	Hemoglobinopathies (including sickle-cell anemia and beta thalassemia, Hb C, D, E, O)	157	LOXHD1	Deafness, Autosomal Recessive 77	104	BLM	Bloom syndrome	49
GHR	Laron dwarfism	202	CD59	Hemolytic anemia & immune-mediated polyneuropathy, CD59-related	158	TMPPRSS3	Deafness, Autosomal Recessive 8/10	105	BMPR1B	Brachydactyly type A2	50
LAMA3	Laryngooxychotaneous Syndrome	203	CFH	Hemolytic uremic syndrome, complement factor H deficiency	159	OTOF	Deafness, Autosomal Recessive 9	106	ZNF469	Brittle cornea syndrome 1	51
GUCY2D	Leber congenital amaurosis 1, Cone-rod dystrophy 6	204	UNC13D	Hemophagocytic lymphohistiocytosis, familial, 3	160	AQP2	Diabetes insipidus, nephrogenic	108	ASPA	Canavan Disease	52
RDH12	Leber congenital amaurosis 13	205	GNE	Hemophagocytic lymphohistiocytosis, familial body myopathy (HIBM)	161	DGAT1	Diaphorinopodiyosostosis	109	CPS1	Carbamoylphosphate synthetase I deficiency	53
RPE65	Leber congenital amaurosis 2	206	HPS1	Hermansky-Pudlak syndrome 1	162	DLD	Desmosterolosis	110	PP1R13L	Cardio-Cutaneous Syndrome DCM	54
AIP1	Leber congenital amaurosis 4	207	HPS3	Hermansky-Pudlak syndrome 3	163	ELP1	Dysautonomia, familial	112	TTN	Cardiomyopathy, dilated	55
LCA5	Leber congenital amaurosis 5	208	HPS6	Hermansky-Pudlak syndrome 6	164	CDAN1	Dyserythropoietic anemia, congenital, type Ia	113	SDHA	Cardiomyopathy, dilated, tGG neonatal isolated	56
CRB1	Leber congenital amaurosis 8	209	ITGB4	Hemolytic uremic syndrome, complement factor H deficiency	165	SEC23B	Dyserythropoietic anemia, congenital, type II	114	SLC22A5	Carnitine deficiency, systemic primary	57
NDUFS4	Leigh syndrome	210	ADAMT2L	Hemophagocytic lymphohistiocytosis, familial	166	RTET1	Dyskeratosis congenita	115	SLC25A20	Carnitine-acylcarnitine translocase deficiency - CACT	58
INSR	Rabson-Mendenhall syndrome	211	ST3GAL3	Hermansky-Pudlak syndrome 15	167	ADAMT2S	Ehlers Danlos syndrome, type VIIC	116	THG1L	Cerebral ataxia and developmental delay	59
ERBB3	Lethal congenital contractual syndrome 2	212	DST	Ehlers Danlos syndrome, type VII	168	GATM	Cerebral creatine deficiency syndrome 3	60	CYP27A1	Cerebrotendinous xanthomatosis	61
PIP5K1C	Lethal congenital contractual syndrome 3	213	ITGB4	Epidemolysis bullosa, simplex, Autosomal Recessive 2	169	PPT1	Ceroid lipofuscinosis, neuronal, 1	62	COL17A1	Epidemolysis bullosa generalized atrophic benign	122
MYBPC1	Lethal congenital contracture syndrome 4	214	LAMC2	Epidemolysis bullosa, junctional, Herlitz type	170	COL17A1	Epidemolysis bullosa generalized atrophic benign	122	PRICKLE1	Epilepsy, progressive myoclonic 1B	123
AIMP1	Leukodystrophy, hypomyelinating, 3	215	LAMB3	Epidemolysis bullosa, junctional, non-Herlitz type	171	ALDH7A1	Epilepsy, progressive myoclonic 1B	123	ITGB4	Epilepsy, junctional, Herlitz type	171
HSPD1	Leukodystrophy, hypomyelinating, 4 - Pelizaeus-Merzbacher like disease	216	CBS	Homocystinuria, thrombosis, hyperhomocysteinemic	172	FRTK1	Epilepsy, progressive myoclonic 1B	124	LAMC2	Epidemolysis bullosa, junctional, Herlitz type	170
C11ORF73	Leukoencephalopathy	217	CCDC88C	Hydrocephalus, nonsyndromic, Autosomal Recessive	173	SZT2	Epileptic encephalopathy, early infantile, 18	125	ITGB4	Epilepsy, pyridoxine-dependent	124
DARS2	Leukoencephalopathy with brain stem and spinal cord involvement and lactate elevation	218	ITGB4	Homocystinuria, thrombosis, hyperhomocysteinemic	174	DSG1	Erythroderma, congenital, with palmoplantar keratoderma, hypotrichosis, and hyper IgE	126	NCF1	Chronic granulomatous disease due to deficiency of NCF-1	125
TRMU	LIFT, Liver failure infantile transient	219	COL17A1	Hydrocephalus, nonsyndromic, Autosomal Recessive	175	CSTA	Exfoliative ichthyosis, Autosomal Recessive, ichthyosis bullosa of Siemens-like	127	NCF2	Chronic granulomatous disease due to deficiency of NCF-2	126
AN05	Limb-girdle muscular dystrophy	220	PRICKLE1	Familial ichthyosis, primary, 1	176	F7	Factor VII deficiency	128	CYBA	Chronic granulomatous disease,autosomal, due to deficiency of CYBA	127
CDK5	Lissencephaly 7 with cerebellar hypoplasia	221	ALDH7A1	Familial ichthyosis, primary, 1	177	FANCG	Familial ichthyosis, primary, 12	129	GPSM2	Chudley-McCullough syndrome	128
HADHA	Long-Chain hydroxyl-CoA dehydrogenase deficiency (LCHAD)	222	FANCA	Familial ichthyosis, primary, 16	178	DNAI1	Ciliary dyskinesia, primary, 1, with or without situs inversus	129	DNAI1	Ciliary dyskinesia, primary, 1, with or without situs inversus	129
RIN2	Macrocephaly, alopecia, cutis laxa, and scoliosis	223	FANCC	Familial ichthyosis, primary, 26	179	F7	Factor VII deficiency	128	RSPH9	Ciliary dyskinesia, primary, 12	129
BCKDHA	Maple syrup urine disease, type Ia	224	ITGB4	Familial ichthyosis, primary, 27	180	DNAI1	Ciliary dyskinesia, primary, 16	130	DNAI1	Ciliary dyskinesia, primary, 1, with or without situs inversus	129
BCKDHB	Maple syrup urine disease, type Ib	225	ITGA2B	Familial ichthyosis, primary, 27	181	FANCA	Familial ichthyosis, primary, 26	130	F7	Factor VII deficiency	128
MKS1	Meckel syndrome 1	226	ITGA2B	Familial ichthyosis, primary, 27	182	FANCC	Familial ichthyosis, primary, 26	131	FANCA	Familial ichthyosis, primary, 26	130
TMEM231	Meckel syndrome 11	227	ITGB3	Familial ichthyosis, primary, 27	183	SLC2A2	Familial ichthyosis, primary, 26	132	FANCC	Familial ichthyosis, primary, 26	131
TMEM216	Joubert syndrome 2	228	ITGB3	Familial ichthyosis, primary, 27	184	ALDOB	Fructose intolerance	133	ITGB3	Familial ichthyosis, primary, 27	133
CEP290	Meckel syndrome 4	229	ITGA2B	Familial ichthyosis, primary, 27	185	FH	Fumarate deficiency, leiomoyomatosis and renal cell cancer	134	ALDOB	Fructose intolerance	133
RPGRIP1L	Meckel syndrome 5	230	ITGA2B	Familial ichthyosis, primary, 27	186	GALT	Galactosemia	135	ERCC8	Cockayne syndrome, type A	80
TCTN2	Meckel syndrome 8	231	ITGA2B	Familial ichthyosis, primary, 27	187	GBA	Gaucher disease, type I	136	ERCC6	Cockayne syndrome, type B	81
ACADM	Medium-chain Acyl-CoA dehydrogenase deficiency	232	ITGA2B	Familial ichthyosis, primary, 27	188	GAN	Giant axonal neuropathy 1	137	CO04	Coenzyme Q10 deficiency, primary, 7	82
MLC1	Megalencephalic leukoencephalopathy with subcortical cysts	233	ITGA2B	Familial ichthyosis, primary, 27	189	SLC25A1	Giant axonal neuropathy 1	138	VPS13B	Arthrogryposis renal dysfunction and cholestasis (ARC) syndrome	24
TRAPP9	Mental retardation, Autosomal Recessive 13	234	ITGA2B	Familial ichthyosis, primary, 27	190	ITGB3	Glanzmann thrombasthenia, ITGB3-related	139	C21orf59	Ciliopathy, progressive, primary, 12	74
MAN1B1	Mental retardation, Autosomal Recessive 15	235	ITGA2B	Familial ichthyosis, primary, 27	191	ITGA2B	Glycogen storage disease, type I	140	ITGA2B	Glycogen storage disease, type I	75
CC2D1A	Mental retardation, autosomal recessive 3	236	ITGA2B	Familial ichthyosis, primary, 27	192	ITGA2B	Glycogen storage disease, type I	141	ITGA2B	Glycogen storage disease, type I	76
TAF2	Mental retardation, Autosomal Recessive 40	237	ITGA2B	Familial ichthyosis, primary, 27	193	ITGA2B	Glycogen storage disease, type I	142	ITGA2B	Glycogen storage disease, type I	77
ARSA	Metachromatic leukodystrophy - MLD	238	ITGA2B	Familial ichthyosis, primary, 27	194	ITGA2B	Glycogen storage disease, type I	143	ITGA2B	Glycogen storage disease, type I	78
MUT	Methylmalonic acidemia, mut0 type	239	ITGA2B	Familial ichthyosis, primary, 27	195	ITGA2B	Glycogen storage disease, type I	144	ITGA2B	Glycogen storage disease, type I	79

Gene	Disease		Gene	Disease	
FAM20A	Amelogenesis imperfecta, type IG (enamel-renal syndrome)	21	COLE11	3MC syndrome 2	1
POR	Antley-Bixler syndrome with deafness, encephalopathy, and Leigh-like syndrome	22	SERAC1	3-methylglutaconic aciduria with deafness, encephalopathy, and Leigh-like syndrome	2
ASL	Argininosuccinic aciduria	23	OPA3	3-methylglutaconic aciduria, type III - Costeau	3
VPS33B	Arthrogryposis renal dysfunction and cholestasis (ARC) syndrome	24	MTTP	Abetalipoproteinemia ABL	4
SLC35A3	Arthrogryposis, mental retardation, and seizures	25	CNGA3	Achromatopsia-2 - total color blindness	5
WISP3	Arthropathy, progressive pseudorheumatoid, of childhood	26	CNGB3	Achromatopsia-3,macular degeneration, juvenile	6
ASNS	Asparagine synthetase deficiency	27	SLC39A4	Acrodermatitis enteropathica	7
MRE11A	Ataxia Telangiectasia like disorder	29	ACADVL	Acyl-CoA dehydrogenase, very long-chain, VLCAD deficiency	8
APTX	Ataxia, early-onset, with oculomotor apraxia and hypoalbuminemia	30	EOGT	Adams-Oliver syndrome 4	9
ATM	Ataxia-telangiectasia	31	CYP11A1	Adrenalin insufficiency, congenital, with 46XY sex reversal, partial or complete	10
TMEM70	ATPase deficiency, nuclear encoded	32	TBX19	Adrenocorticotrophic hormone deficiency	11
AIRE	Autoimmune polyendocrinopathy syndrome , type I, with or without reversible metaphyseal dysplasia	33	FGB	A fibrinogenemia congenital	12
HACD1	Congenital myopathy	87	SAMHD1	Aicardi Goutieres syndrome	13
SLC26A3	Congenital chloride diarrhea (CLD)	88	RNASEH2B	Aicardi-Goutieres syndrome 2	14
NNT	Congenital glycosidase deficiency 4	141	GMPPA	Alacrima, Achalasia, And Mental Retardation Syndrome	15
ETFDH	Glutaric aciduria IIC	142	PSMB8	Autoinflammation, lipodystrophy, and dermatosis syndrome	34
LRBA	Immunodeficiency, common variable, 8, with autoimmunity	187	OCA2	Albinism, oculocutaneous, type IA	16
ZBTB24	Immunodeficiency-centromeric instability-facial anomalies syndrome-2	188	COL4A4	Albinism, oculocutaneous, type II	17
			COL4A4	Alport syndrome, COL4A4-Related	18
			ALMS1	Alstrom syndrome	19
			BBS1	Bardet-Biedl syndrome 1	20