

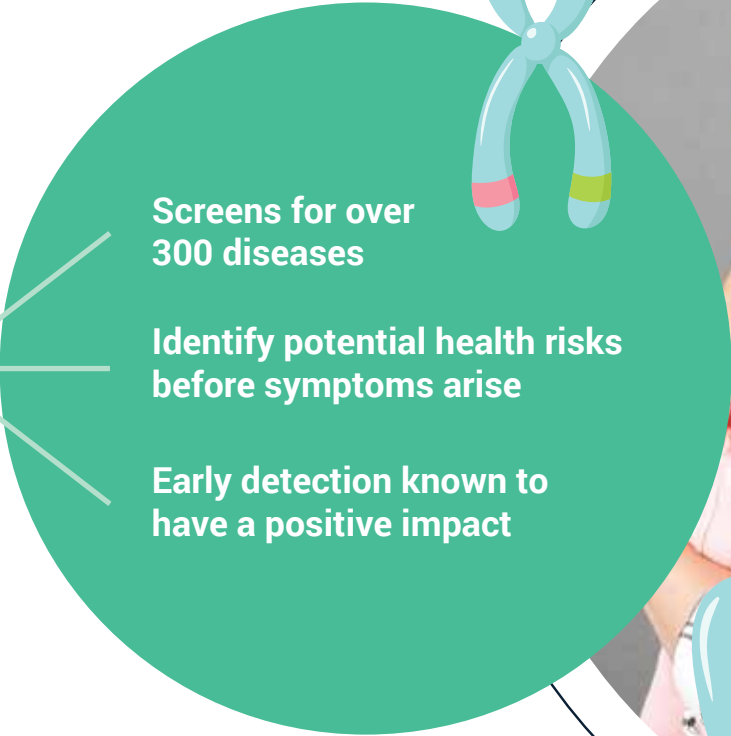
Genetic Analysis Beyond Standard New Born Screening

Rapid Newborn Genetic Screening of
335 Genes by NGS Technology

“New Born Screening” is a Hybridization based library preparation techniques for high-throughput Sequencing

It covers all sequencing of all exonic regions for 335 genes associated with metabolic and genetic diseases. The test is indicated for newborns and children. Offers early screening for genetic and metabolic diseases that appear during the first stages of life, providing key information for disease management and early treatment.

Early detection, intervention & management could prove essential for the infant’s overall health and quality of life.



- Expert
- Rapid
- Accurate

This test is designed for

The test is indicated for newborns and children who do not present symptoms of disease.

Neonates with abnormal results of routine biochemical screening, MS/MS screening or failure on routine hearing screenings.

Neonates with clinical manifestation of delayed jaundice, difficulty in feeding, vomiting, diarrhea, anemias.

Advantages

Expert Specially designed gene detection kit for newborn screening

Screen for diseases beyond standard Newborn testing

Accurate Multiple quality control, multi-center verification, Leading phenotypic-genotypic database

Panel Performance

Features	Performance
Coverage uniformity	95%
Precision	98%
Reproducibility	98%
Sensitivity	>90%
On Target Ratio	86-93%

Commercial Name	Cat No.
Genome Kundli NGS Panel (New Born Screening)	G2MGK29001-ill G2MGK29001-MG G2MGK29001-TF

Metabolic Disorders

- Amino Acids Metabolic Disorders
- Organic Acid Metabolic Disorders
- Fatty Acid β Oxidation Metabolic Disorders
- Endocrine Disorders
- Carbohydrate Metabolic Disorders
- Metabolic Epilepsy Diseases
- Other Inborn Errors of Metabolism

Genetic Disorders

- Deafness
- Hemophilia B
- B-thalassaemia
- Noonan Syndrome
- Marfan Syndrome

Specimen Required



Dry Blood Spots (size 3.2mm, 5 pieces) by heel prick test



Peripheral Blood (1ml)

S.No.	Disease Name	S.No.	Disease Name
1	2,4 Dienoyl-CoA reductase deficiency	102	Deafness 10
2	2-methyl-3-hydroxybutyric aciduria	103	Deafness 6
3	2-methylbutyric aciduria	104	Deafness 8
4	2-methylbutyryl-CoA dehydrogenase deficiency	105	Developmental and epileptic encephalopathy 6
5	3-hydroxy-3-methylglutaric aciduria	106	Developmental delay due to ALDH6A1 deficiency
6	3-methylcrotonyl-CoA carboxylase 1 deficiency	107	Dravet syndrome
7	3-methylcrotonyl-CoA carboxylase 2 deficiency	108	Duchenne muscular dystrophy
8	3-methylglutaconic aciduria 1	109	Dystonia dopa-responsive due to sepiapterin reductase deficiency
9	3-methylglutaconic aciduria 3	110	Early infantile epileptic encephalopathy
10	3-methylglutaconic aciduria 7	111	Enteropathy
11	3-methylglutaconic aciduria 9	112	Epilepsy vitamin B6-dependent
12	3-phosphoglycerate dehydrogenase deficiency	113	Erythropoietic protoporphyria
13	6-pyruvoyl-tetrahydropterin synthase deficiency	114	Ethylmalonic encephalopathy
14	Abetalipoproteinemia	115	Fabry disease
15	Abnormal metabolism thyroid hormone	116	Familial Mediterranean fever
16	Achalasia-addisonianism-alacrima syndrome	117	Familial glucocorticoid deficiency
17	Achondroplasia	118	Familial hemophagocytic lymphohistiocytosis
18	Acrodermatitis enteropathica	119	Familial hyperaldosteronism I
19	Acute hepatic porphyria	120	Familial infantile convulsions with paroxysmal choreoathetosis
20	Adrenoleukodystrophy	121	Favism
21	Agammaglobulinemia X-linked	122	Frasier syndrome
22	Alagille syndrome	123	Fructose-1,6-bisphosphatase deficiency
23	Alkaptonuria	124	GLUT1 deficiency syndrome 1
24	Alpha-mannosidosis	125	GM1-gangliosidosis 1
25	Alport syndrome	126	Galactosemia I
26	Argininemia	127	Galactosemia IV
27	Argininosuccinic aciduria	128	Galactosemia due to galactokinase deficiency
28	Aromatic L-Amino Acid Decarboxylase Deficiency	129	Galactosemia due to galactose epimerase deficiency
29	Aspartylglucosaminuria	130	Galactosemia due to mutarotase deficiency
30	Ataxia with isolated vitamin E deficiency	131	Gaucher disease
31	Autosomal dominant and recessive GTP cyclohydrolase I	132	Glutaric Acidemia II
32	Autosomal dominant hyperinsulinism due to SUR1 deficiency	133	Glutathione synthetase deficiency
33	Autosomal recessive 1A deafness	134	Glycine encephalopathy
34	Autosomal recessive 1B deafness	135	Glycogen storage Ia disease
35	Autosomal recessive DOPA-responsive dystonia	136	Glycogen storage disease 0
36	Autosomal recessive Segawa syndrome	137	Glycogen storage disease IB and IC
37	Autosomal recessive deafness 18a	138	Glycogen storage disease II
38	Autosomal recessive deafness 28	139	Glycogen storage disease III
39	Autosomal recessive deafness 31	140	Glycogen storage disease Ia
40	Autosomal recessive deafness 79	141	Glycogen storage disease VI
41	Bare lymphocyte syndrome II	142	Glycogen storage disease type
42	Barth syndrome	143	Growth delay due to insulin-like growth factor I deficiency
43	Benign familial infantile seizures	144	HMG-CoA synthase 2 deficiency
44	Benign familial neonatal epilepsy	145	Hearing loss (HL)
45	Beta-ketothiolase deficiency	146	Hemophilia A
46	Biotinidase deficiency	147	Hemophilia B
47	Carbamoyl-phosphate synthetase 1 deficiency	148	Hereditary amyloidosis transthyretin-related
48	Carnitine palmitoyl transferase 1a deficiency	149	Hereditary angioedema 1 and 2
49	Carnitine palmitoyl transferase 2 deficiency	150	Hereditary fructose intolerance
50	Carnitine-acylcarnitine translocase deficiency	151	Hereditary hemorrhagic telangiectasia type 1
51	Cerebral creatine deficiency 2 syndrome	152	Hereditary hemorrhagic telangiectasia type 2
52	Cerebral creatine deficiency 3 syndrome	153	Hermansky-Pudlak syndrome
53	Cerebral creatine deficiency syndrome 1	154	Heterotaxy
54	Cerebral folate transport deficiency	155	Holocarboxylase synthetase deficiency
55	Cerebrotendinous xanthomatosis	156	Homocystinuria due to methylenetetrahydrofolate reductase deficiency
56	Chronic granulomatous X-linked disease	157	Homocystinuria-megaloblastic anemia due to defect in cobalamin metabolism cblG
57	Citrullinemia 1	158	Homocystinuria-megaloblastic anemia due to defect in cobalamin metabolism cblE
58	Citrullinemia 2	159	Hunter disease
59	Classic galactosemia	160	Hurler-Scheie syndrome
60	Classic homocystinuria	161	Hyperammonemia due to N-acetylglutamate synthase deficiency
61	Classical congenital adrenal hyperplasia due to 21-hydroxylase deficiency	162	Hypercholesterolemia
62	Combined immunodeficiency due to DOCK8 deficiency	163	Hyperinsulinemic hypoglycemia 4
63	Combined malonic and methylmalonic acidemia	164	Hyperinsulinemic hypoglycemia 6
64	Combined pituitary hormone deficiencies	165	Hyperinsulinism-hyperammonemia syndrome
65	Combined pituitary hormone deficiency	166	Hypermethioninemia due to adenosine kinase deficiency
66	Combined pituitary hormone deficiency 2	167	Hypermethioninemia due to glycine N-methyltransferase deficiency
67	Complementation group B	168	Hypermethioninemia with S-adenosylhomocysteine hydrolase deficiency
68	Complementation group C and E	169	Hyperornithinemia-hyperammonemia-homocitrullinuria syndrome
69	Complementation group D	170	Hyperprolinemia 1
70	Congenital adrenal hyperplasia due to 11-beta-hydroxylase deficiency	171	Hyperprolinemia II
71	Congenital adrenal hyperplasia due to 17-alpha-hydroxylase deficiency	172	Hypervolemia and hyperleucine-isoleucinemia
72	Congenital adrenal hyperplasia due to 3-beta-hydroxysteroid dehydrogenase 2 deficiency	173	Hypocalciuric hypercalcemia I
73	Congenital amegakaryocytic thrombocytopaenia	174	Hypophosphatasia
74	Congenital bile acid synthesis defect 1	175	Hypophosphatemic rickets with hypercalciuria
75	Congenital bile acid synthesis defect 2	176	Immune dysregulation
76	Congenital bile acid synthesis defect 4	177	Immunodeficiency 18
77	Congenital bile acid synthesis defect 6	178	Immunodeficiency 19
78	Congenital cyclic neutropenia 1	179	Immunodeficiency by defective expression of MHC class I
79	Congenital disorder of glycosylation 1b	180	Isobutyryl-CoA dehydrogenase deficiency
80	Congenital hyperinsulinism	181	Isovaleric acidemia
81	Congenital hypothyroidism due to thyroid dysgenesis or hypoplasia	182	Jervell and Lange-Nielsen syndrome
82	Congenital hypothyroidism nongoitrous 1	183	Juvenile polyposis syndrome
83	Congenital hypothyroidism nongoitrous 4	184	Krabbe disease
84	Congenital hypothyroidism nongoitrous 5	185	L-2-hydroxyglutaric aciduria
85	Congenital hypothyroidism nongoitrous 6	186	Leigh syndrome
86	Congenital hypothyroidism nongoitrous 7	187	Lipoprotein lipase deficiency (LPL)
87	Congenital hypothyroidism nongoitrous 8	188	Loeys-Dietz syndrome
88	Congenital hypothyroidism nongoitrous 9	189	Long-chain 3-hydroxyacyl-CoA dehydrogenase (subunit A) deficiency
89	Congenital insensitivity to pain with anhidrosis	190	Long-chain 3-hydroxyacyl-CoA dehydrogenase (subunit B) deficiency
90	Congenital lipid adrenal hyperplasia	191	Lysinuric protein intolerance
91	Cori disease	192	Lysosomal acid lipase deficiency
92	Craniometaphyseal dysplasia	193	MHC class II deficiency
93	Crigler-Najjar syndrome 1 and 2	194	Malonic aciduria
94	Crisponi syndrome	195	Malonyl-CoA decarboxylase deficiency
95	Cryopyrin-associated periodic syndrome	196	Maple syrup urine Ia disease
96	Cystathioninuria	197	Maple syrup urine Ib disease
97	Cystic fibrosis	198	Maple syrup urine disease type III
98	Cystinosis	199	Marfan syndrome
99	Cystinuria	200	Maroteaux-Lamy disease
100	Cytochrome P450 oxidoreductase deficiency	201	Medium chain Acyl-CoA dehydrogenase deficiency
101	Danon disease	202	Menkes disease

S.No.	Disease Name	S.No.	Disease Name
203	Metachromatic leukodystrophy	272	Pyridoxamine 5-prime-phosphate oxidase deficiency
204	Methionine adenosyltransferase deficiency	273	Pyridoxine-dependent epilepsy
205	Methylmalonic Acidemia and Homocysteinemia cblX	274	Pyruvate carboxylase deficiency
206	Methylmalonic acidemia and homocysteinemia cblX	275	Pyruvate kinase deficiency
207	Methylmalonic acidemia cblA	276	Q-dihydropteridine reductase deficiency
208	Methylmalonic acidemia cblB	277	RPE65-associated retinal dystrophy
209	Methylmalonic acidemia due to methylmalonyl-CoA epimerase deficiency	278	Retinitis pigmentosa 39
210	Methylmalonic acidemia due to methylmalonyl-CoA mutase deficiency	279	Retinoblastoma
211	Methylmalonic aciduria	280	Sanfilippo A
212	Methylmalonic aciduria and homocystinuria cblJ	281	Sanfilippo B
213	Methylmalonic aciduria and homocystinuria cblC	282	Sanfilippo C
214	Methylmalonic aciduria and homocystinuria cblD	283	Sanfilippo D
215	Methylmalonic aciduria and homocystinuria cblF	284	Scheie syndrome
216	Methylmalonic aciduria due to transcobalamin receptor defect	285	Sensorineural hearing loss
217	Mevalonic aciduria	286	Severe Combined Immunodeficiency
218	Mild non-BH4-deficient hyperphenylalaninemia	287	Severe Combined Immunodeficiency JAK3
219	Mitochondrial DNA depletion syndrome 5 (encephalomyopathic with or without methylmalonic aciduria)	288	Severe combined immunodeficiency Athabaskan
220	Morquio A syndrome	289	Severe combined immunodeficiency B RAG-deficient
221	Morquio B syndrome	290	Severe combined immunodeficiency RAG-deficient
222	Mucopolipidosis II	291	Severe combined immunodeficiency X-linked
223	Mucopolysaccharidosis 7	292	Severe combined immunodeficiency due to IL-7Ralpha deficiency
224	Mucopolysaccharidosis I	293	Severe combined immunodeficiency due to adenosine deaminase deficiency
225	Mucopolysaccharidosis II	294	Severe congenital neutropenia 3
226	Mucopolysaccharidosis IIIA	295	Shah-Waardenburg syndrome
227	Mucopolysaccharidosis IIIC	296	Short chain Acyl-CoA dehydrogenase deficiency
228	Mucopolysaccharidosis IIID	297	Sickle cell anemia
229	Mucopolysaccharidosis IVA	298	Sitosterolemia
230	Mucopolysaccharidosis VI	299	Sly syndrome
231	Multiple acyl-CoA dehydrogenase deficiency	300	Spherocytosis
232	Multiple endocrine neoplasia I	301	Spinal muscular atrophy I
233	Neonatal diabetes mellitus	302	Spinal muscular atrophy II
234	Neonatal hyperparathyroidism	303	Spinal muscular atrophy III
235	Neonatal lactic acidosis with methylmalonic aciduria	304	Spinal muscular atrophy IV
236	Nephrogenic diabetes insipidus 1	305	Systemic primary carnitine deficiency
237	Nephrogenic diabetes insipidus 2	306	Tay-Sachs disease
238	Neu-Laxova syndrome-2	307	Thrombotic thrombocytopenic purpura
239	Neurofibromatosis type 1	308	Thyroid hormonogenesis 1 defect
240	Neurofibromatosis type 2	309	Thyroid hormonogenesis 2A defect
241	Neuronal ceroid lipofuscinosis 2	310	Thyroid hormonogenesis 3 defect
242	Nevoid basal cell carcinoma syndrome	311	Thyroid hormonogenesis 4 defect
243	Niemann-Pick A and B disease	312	Thyroid hormonogenesis 5 defect
244	Niemann-Pick C disease	313	Thyroid hormonogenesis 6 defect
245	Nonketotic hyperglycinemia	314	Transcobalamin II deficiency
246	Nonsyndromic hearing loss	315	Transient infantile liver failure
247	Noonan syndrome	316	Triple A syndrome
248	Ocular albinism type I	317	Tuberous sclerosis complex 1
249	Oculocutaneous albinism type IV	318	Tuberous sclerosis complex 2
250	Optic atrophy 1	319	Tyrosinemia 1
251	Ornithine aminotransferase deficiency	320	Tyrosinemia 2
252	Ornithine transcarbamylase deficiency	321	Tyrosinemia 3
253	Osteogenesis imperfecta	322	Usher syndrome 1b
254	Osteopetrosis	323	Usher syndrome 1c
255	PSPH - phosphoserine phosphatase	324	Usher syndrome 1d
256	Paroxysmal exertion-induced dyskinesia	325	Usher syndrome 1g
257	Paroxysmal nocturnal hemoglobinuria	326	Usher syndrome 2a
258	Pendred syndrome	327	Usher syndrome 2d
259	Peutz-Jeghers syndrome	328	Very long chain Acyl-CoA dehydrogenase deficiency
260	Phenylketonuria	329	Vitamin D hydroxylation-deficient rickets I
261	Pituitary hormone deficiency 1	330	Vitamin D-dependent rickets 2
262	Polycystic kidney and hepatic disease	331	Von Hippel-Lindau syndrome
263	Polycystic kidney disease	332	Waardenburg syndrome
264	Polyendocrinopathy	333	Wilson disease
265	Pompe disease	334	Wolman disease
266	Primary hyperoxaluria 1	335	X-linked adrenal hypoplasia congenita
267	Primary hyperoxaluria 2	336	X-linked central congenital hypothyroidism with testicular enlargement
268	Primary hyperoxaluria 3	337	X-linked hyper IgM syndrome
269	Propionic acidemia	338	X-linked hypophosphatemic rickets
270	Pseudohypoadosteronism 1	339	Xeroderma pigmentosum
271	Pterin-4-alpha-carbinolamine dehydratase deficiency	340	β-thalassaemia



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