RENAL DISORDERS PANEL DG-5.2.0 (329 GENES)

Gene symbols used follow HGNC guidelines: Gray KA, Yates B, Seal RL, Wright MW, Bruford EA. Nucleic Acids Res. 2015 Jan 43(Database issue):D1079-85.
OMIM disease identifiers and descriptions : October 25th, 2026.
This list is accurate for panel version DG 5.2.0
non-protein coding genes are covered, but as coverage statistics are based on protein coding regions, statistics could not be generated.
Ad 1. Blank field signifies a gene without a current OMIM association
Ad 2. OMIM phenotype descriptions between {} signify risk factors
*Ad * This value indicates the percentage of a gene's coding sequence covered at or above the specified Genotype Quality (GQ) threshold, based on alignment against the GRCh38 reference genome. The GQ score is a measure of the confidence of the genotype call and is calculated based on both the quantity and quality of the DNA reads.*
- GQ 20: 99% confidence in the genotype call
- GQ 30: 99.9% confidence in the genotype call

Gene	WES GQ>20 | GQ>30*	srWGS GQ>20 | GQ>30*	lrWGS GQ>20 | GQ>30*	Associated Phenotype description and OMIM disease ID
ACE	99% | 99%	95% | 95%	98% | 98%	Renal tubular dysgenesis, 267430;{Microvascular complications of diabetes 3}, 612624;[Angiotensin I-converting enzyme, benign serum increase], 621420
ACTN4	93% | 92%	96% | 96%	98% | 98%	Glomerulosclerosis, focal segmental, 1, 603278
ADAMTS13	100% | 100%	96% | 96%	98% | 98%	Thrombotic thrombocytopenic purpura, hereditary, 274150
ADAMTS9	100% | 100%	97% | 97%	100% | 100%	
ADCY10	100% | 100%	98% | 97%	99% | 99%	{Hypercalciuria, absorptive, susceptibility to}, 143870
AGT	96% | 96%	97% | 97%	99% | 99%	Renal tubular dysgenesis, 267430
AGTR1	100% | 100%	98% | 98%	99% | 99%	{Hypertension, essential}, 145500;Renal tubular dysgenesis, 267430
AGXT	95% | 94%	96% | 96%	99% | 99%	Hyperoxaluria, primary, type 1, 259900
AHI1	99% | 99%	98% | 98%	100% | 100%	Joubert syndrome 3, 608629
AIRE	100% | 100%	96% | 96%	95% | 95%	Autoimmune polyendocrinopathy syndrome , type I, with or without reversible metaphyseal dysplasia, 240300
ALDOB	100% | 100%	98% | 98%	100% | 100%	Fructose intolerance, hereditary, 229600
ALG1	100% | 100%	95% | 95%	98% | 98%	Congenital disorder of glycosylation, type Ik, 608540
ALG5	92% | 92%	98% | 98%	99% | 99%	Polycystic kidney disease 7, 620056
ALG8	78% | 78%	95% | 95%	99% | 99%	Congenital disorder of glycosylation, type Ih, 608104;Polycystic liver disease 3 with or without kidney cysts, 617874
ALG9	100% | 100%	96% | 96%	99% | 99%	Gillessen-Kaesbach-Nishimura syndrome, 263210;Congenital disorder of glycosylation, type Il, 608776
ALMS1	100% | 100%	97% | 97%	100% | 100%	Alstrom syndrome, 203800
AMN	99% | 99%	93% | 93%	97% | 97%	Imerslund-Grasbeck syndrome 2, 618882
ANKFY1	100% | 100%	97% | 97%	99% | 99%	

ANKS6	99% | 99%	97% | 97%	99% | 99%	Nephronophthisis 16, 615382
ANLN	98% | 98%	98% | 98%	99% | 99%	Focal segmental glomerulosclerosis 8, 616032
ANOS1	99% | 99%	98% | 98%	100% | 100%	Hypogonadotropic hypogonadism 1 with or without anosmia (Kallmann syndrome 1), 308700
AP2S1	82% | 82%	90% | 90%	98% | 98%	Hypocalciuric hypercalcemia, type III, 600740
APOL1	99% | 99%	95% | 95%	98% | 98%	{Glomerulosclerosis, focal segmental, 4, susceptibility to}, 612551
APRT	97% | 97%	97% | 97%	96% | 96%	Adenine phosphoribosyltransferase deficiency, 614723
AQP2	100% | 100%	97% | 97%	99% | 99%	Diabetes insipidus, nephrogenic, 2, 125800
ARHGAP24	99% | 99%	94% | 94%	99% | 99%	
ARHGDIA	100% | 100%	96% | 96%	99% | 99%	Nephrotic syndrome, type 8, 615244
ARHGEF6	94% | 94%	99% | 99%	100% | 100%	
ARL13B	93% | 93%	98% | 98%	98% | 98%	Joubert syndrome 8, 612291
ARL6	100% | 100%	98% | 98%	100% | 100%	Retinitis pigmentosa 55, 613575;{Bardet-Biedl syndrome 1, modifier of}, 209900;Bardet-Biedl syndrome 3, 600151
ATP1A1	95% | 95%	97% | 97%	99% | 99%	Hypomagnesemia, seizures, and impaired intellectual development 2, 618314;Charcot-Marie-Tooth disease, axonal, type 2DD, 618036
ATP6V0A4	100% | 100%	96% | 96%	99% | 99%	Distal renal tubular acidosis 3, with or without sensorineural hearing loss, 602722
ATP6V1B1	100% | 100%	96% | 96%	98% | 98%	Distal renal tubular acidosis 2 with progressive sensorineural hearing loss, 267300
ATP7B	100% | 100%	97% | 97%	99% | 99%	Wilson disease, 277900
AVIL	100% | 100%	97% | 97%	99% | 99%	Nephrotic syndrome, type 21, 618594
AVP	100% | 100%	97% | 97%	99% | 99%	Diabetes insipidus, neurohypophyseal, 125700
AVPR2	97% | 97%	98% | 98%	99% | 99%	Diabetes insipidus, nephrogenic, 1, 304800;Nephrogenic syndrome of inappropriate antidiuresis, 300539
B9D1	100% | 100%	96% | 96%	99% | 99%	?Meckel syndrome 9, 614209;Joubert syndrome 27, 617120
B9D2	99% | 99%	97% | 97%	97% | 97%	?Meckel syndrome 10, 614175;Joubert syndrome 34, 614175
BBIP1	100% | 100%	99% | 99%	100% | 100%	Bardet-Biedl syndrome 18, 615995
BBS1	93% | 93%	94% | 94%	99% | 99%	Bardet-Biedl syndrome 1, 209900
BBS10	100% | 100%	97% | 97%	100% | 100%	Bardet-Biedl syndrome 10, 615987
BBS12	100% | 100%	98% | 98%	99% | 99%	Bardet-Biedl syndrome 12, 615989
BBS2	98% | 98%	98% | 98%	99% | 99%	Retinitis pigmentosa 74, 616562;Bardet-Biedl syndrome 2, 615981

BBS4	100% | 100%	97% | 97%	99% | 99%	Bardet-Biedl syndrome 4, 615982
BBS5	100% | 100%	98% | 98%	100% | 100%	Bardet-Biedl syndrome 5, 615983
BBS7	100% | 100%	98% | 98%	100% | 100%	Bardet-Biedl syndrome 7, 615984
BBS9	92% | 92%	97% | 97%	100% | 100%	Bardet-Biedl syndrome 9, 615986
BCS1L	100% | 100%	98% | 98%	100% | 100%	GRACILE syndrome, 603358;Mitochondrial complex III deficiency, nuclear type 1, 124000;Bjornstad syndrome, 262000
BICC1	100% | 100%	97% | 97%	99% | 99%	{Renal dysplasia, cystic, susceptibility to}, 601331
BSND	100% | 100%	97% | 97%	99% | 99%	Sensorineural deafness with mild renal dysfunction, 602522;Bartter syndrome, type 4a, 602522
C3	97% | 97%	95% | 95%	98% | 98%	C3 deficiency, 613779;{Hemolytic uremic syndrome, atypical, susceptibility to, 5}, 612925;{Macular degeneration, age-related, 9}, 611378
CA2	100% | 100%	97% | 97%	99% | 99%	Osteopetrosis, autosomal recessive 3, with renal tubular acidosis, 259730
CACNA1H	99% | 98%	94% | 94%	97% | 97%	{Epilepsy, childhood absence, susceptibility to, 6}, 611942;Hyperaldosteronism, familial, type IV, 617027;{Epilepsy, idiopathic generalized, susceptibility to, 6}, 611942
CASR	100% | 100%	97% | 97%	100% | 100%	Hypocalcemia, autosomal dominant, with Bartter syndrome, 601198;Hyperparathyroidism, neonatal, 239200;Hypocalcemia, autosomal dominant, 601198;Hypocalciuric hypercalcemia, type I, 145980;{?Epilepsy idiopathic generalized, susceptibility to, 8}, 612899
CC2D2A	98% | 98%	98% | 98%	99% | 99%	COACH syndrome 2, 619111;Retinitis pigmentosa 93, 619845;Meckel syndrome 6, 612284;Joubert syndrome 9, 612285
CCNQ	98% | 98%	98% | 98%	99% | 99%	STAR syndrome, 300707
CD151	99% | 99%	96% | 96%	97% | 97%	[Blood group, Raph], 179620;Epidermolysis bullosa simplex 7, with nephropathy and deafness, 609057
CD2AP	100% | 100%	98% | 98%	99% | 99%	Glomerulosclerosis, focal segmental, 3, 607832
CD46	100% | 100%	98% | 98%	100% | 100%	{Hemolytic uremic syndrome, atypical, susceptibility to, 2}, 612922
CDC73	99% | 99%	97% | 97%	100% | 100%	Hyperparathyroidism, familial primary, 145000;Parathyroid adenoma with cystic changes, 145001;Parathyroid carcinoma, 608266;Hyperparathyroidism-jaw tumor syndrome, 145001
CEP120	100% | 100%	96% | 96%	99% | 99%	Short-rib thoracic dysplasia 13 with or without polydactyly, 616300;Joubert syndrome 31, 617761
CEP164	100% | 100%	96% | 96%	99% | 99%	Nephronophthisis 15, 614845
CEP290	100% | 100%	98% | 97%	99% | 99%	Leber congenital amaurosis 10, 611755;Joubert syndrome 5, 610188;Senior-Loken syndrome 6, 610189;?Bardet-Biedl syndrome 14, 615991;Meckel syndrome 4, 611134
CEP41	100% | 100%	97% | 97%	99% | 99%	Joubert syndrome 15, 614464

CEP55	100% | 100%	97% | 97%	99% | 99%	Multinucleated neurons, anhydramnios, renal dysplasia, cerebellar hypoplasia, and hydranencephaly, 236500
CEP83	100% | 100%	98% | 98%	100% | 100%	Nephronophthisis 18, 615862
CFB	99% | 99%	97% | 97%	99% | 99%	Complement factor B deficiency, 615561;{Hemolytic uremic syndrome, atypical, susceptibility to, 4}, 612924;{Macular degeneration, age-related, 14, reduced risk of}, 615489
CFH	98% | 98%	98% | 98%	100% | 100%	{Macular degeneration, age-related, 4}, 610698;Basal laminar drusen, 126700;Complement factor H deficiency, 609814;{Hemolytic uremic syndrome, atypical, susceptibility to, 1}, 235400
CFHR1	91% | 89%	93% | 90%	96% | 94%	{Macular degeneration, age-related, reduced risk of}, 603075;{Hemolytic uremic syndrome, atypical, susceptibility to}, 235400
CFHR3	93% | 93%	95% | 94%	96% | 96%	{Macular degeneration, age-related, reduced risk of}, 603075;{Hemolytic uremic syndrome, atypical, susceptibility to}, 235400
CFHR5	100% | 100%	98% | 98%	99% | 99%	Nephropathy due to CFHR5 deficiency, 614809
CFI	95% | 95%	98% | 98%	99% | 99%	{Hemolytic uremic syndrome, atypical, susceptibility to, 3}, 612923;{Macular degeneration, age-related, 13, susceptibility to}, 615439;Complement factor I deficiency, 610984
CHRM3	100% | 100%	97% | 97%	100% | 100%	Prune belly syndrome, 100100
CHRNA3	92% | 92%	95% | 95%	99% | 99%	{Lung cancer susceptibility 2}, 612052;Bladder dysfunction, autonomic, with impaired pupillary reflex and secondary CAKUT, 191800
CLCN2	98% | 98%	97% | 97%	98% | 98%	Leukoencephalopathy with ataxia, 615651;Hyperaldosteronism, familial, type II, 605635;{Epilepsy, juvenile myoclonic, susceptibility to, 8}, 607628;{Epilepsy, juvenile absence, susceptibility to, 2}, 607628;{Epilepsy, idiopathic generalized, susceptibility to, 11}, 607628
CLCN5	99% | 99%	99% | 99%	100% | 100%	Proteinuria, low molecular weight, with hypercalciuric nephrocalcinosis, 308990;Hypophosphatemic rickets, 300554;Dent disease 1, 300009;Nephrolithiasis, type I, 310468
CLCNKB	97% | 97%	95% | 95%	97% | 97%	Bartter syndrome, type 3, 607364;Bartter syndrome, type 4b, digenic, 613090
CLDN10	100% | 100%	98% | 98%	100% | 100%	HELIX syndrome, 617671
CLDN16	97% | 97%	98% | 98%	99% | 99%	Hypomagnesemia 3, renal, 248250
CLDN19	99% | 99%	97% | 97%	99% | 99%	Hypomagnesemia 5, renal, with ocular involvement, 248190
CNNM2	100% | 100%	96% | 96%	99% | 99%	Hypomagnesemia 6, renal, 613882;Hypomagnesemia, seizures, and impaired intellectual development 1, 616418
COL4A1	100% | 100%	97% | 97%	98% | 98%	?Retinal arteries, tortuosity of, 180000;{Hemorrhage, intracerebral, susceptibility to}, 614519;Angiopathy, hereditary, with nephropathy, aneurysms, and muscle cramps, 611773;Microangiopathy and leukoencephalopathy, pontine, autosomal dominant, 618564;Brain small vessel disease with or without ocular anomalies, 175780

COL4A3	100% | 100%	97% | 97%	99% | 99%	Alport syndrome 3A, autosomal dominant, 104200;Hematuria, benign familial, 2, 620320;Alport syndrome 3B, autosomal recessive, 620536
COL4A4	98% | 98%	96% | 96%	99% | 99%	Hematuria, familial benign, 1, 141200;Alport syndrome 2, autosomal recessive, 203780
COL4A5	99% | 99%	99% | 99%	100% | 100%	Alport syndrome 1, X-linked, 301050
COQ2	97% | 97%	97% | 96%	99% | 99%	{Multiple system atrophy, susceptibility to}, 146500;Coenzyme Q10 deficiency, primary, 1, 607426
COQ6	100% | 100%	97% | 97%	99% | 99%	Coenzyme Q10 deficiency, primary, 6, 614650
COQ7	99% | 99%	96% | 96%	98% | 98%	Coenzyme Q10 deficiency, primary, 8, 616733;Neuronopathy, distal hereditary motor, autosomal recessive 9, 620402
COQ8B	92% | 92%	96% | 96%	99% | 99%	Nephrotic syndrome, type 9, 615573
COQ9	92% | 92%	97% | 97%	99% | 99%	Coenzyme Q10 deficiency, primary, 5, 614654
CPLANE1	100% | 100%	97% | 97%	99% | 99%	Orofaciodigital syndrome VI, 277170;Joubert syndrome 17, 614615
CRB2	99% | 99%	96% | 96%	98% | 98%	Focal segmental glomerulosclerosis 9, 616220;Ventriculomegaly with cystic kidney disease, 219730
CSPP1	97% | 97%	97% | 97%	99% | 99%	Joubert syndrome 21, 615636
CTNS	100% | 100%	96% | 96%	99% | 99%	Cystinosis, nephropathic, 219800;Cystinosis, ocular nonnephropathic, 219750;Cystinosis, late-onset juvenile or adolescent nephropathic, 219900;Cystinosis, atypical nephropathic, 219800
CUBN	100% | 100%	97% | 97%	99% | 99%	[Proteinuria, chronic benign], 618884;Imerslund-Grasbeck syndrome 1, 261100
CUL3	98% | 98%	97% | 97%	99% | 99%	Neurodevelopmental disorder with or without autism or seizures, 619239;Pseudohypoaldosteronism, type IIE, 614496
CYP24A1	100% | 100%	96% | 96%	99% | 99%	Hypercalcemia, infantile, 1, 143880
DAAM2	100% | 100%	97% | 97%	99% | 99%	Nephrotic syndrome, type 24, 619263
DCDC2	100% | 100%	97% | 97%	99% | 99%	Nephronophthisis 19, 616217;?Deafness, autosomal recessive 66, 610212;Sclerosing cholangitis, neonatal, 617394
DGKE	100% | 100%	98% | 98%	99% | 99%	{Hemolytic uremic syndrome, atypical, susceptibility to, 7}, 615008;Nephrotic syndrome, type 7, 615008
DLC1	100% | 100%	97% | 97%	99% | 99%	Colorectal cancer, somatic, 114500
DMP1	100% | 100%	97% | 97%	100% | 100%	Hypophosphatemic rickets, AR, 241520
DNAJB11	100% | 100%	96% | 96%	99% | 99%	Polycystic kidney disease 6 with or without polycystic liver disease, 618061
DSTYK	100% | 100%	97% | 97%	99% | 99%	Spastic paraplegia 23, autosomal recessive, 270750;Congenital anomalies of kidney and urinary tract 1, 610805
DYNC2H1	100% | 100%	98% | 98%	99% | 99%	Short-rib thoracic dysplasia 3 with or without polydactyly, 613091

DYNC2I1	96% | 96%	97% | 97%	99% | 99%	Short-rib thoracic dysplasia 8 with or without polydactyly, 615503
DZIP1L	100% | 100%	97% | 97%	99% | 99%	Polycystic kidney disease 5, 617610
EGF	100% | 100%	97% | 97%	99% | 99%	?Hypomagnesemia 4, renal, 611718
EHHADH	100% | 100%	98% | 98%	99% | 99%	?Fanconi renotubular syndrome 3, 615605
EMP2	100% | 100%	96% | 96%	99% | 99%	Nephrotic syndrome, type 10, 615861
ENPP1	100% | 100%	97% | 97%	99% | 99%	{Obesity, susceptibility to}, 601665;Hypophosphatemic rickets, autosomal recessive, 2, 613312;{Diabetes mellitus, non-insulin-dependent, susceptibility to}, 125853;Arterial calcification, generalized, of infancy, 1, 208000;Cole disease, 615522
EYA1	100% | 100%	98% | 98%	100% | 100%	Branchiootic syndrome 1, 602588;Branchiootorenal syndrome 1, with or without cataracts, 113650;Anterior segment anomalies with or without cataract, 602588;?Otofaciocervical syndrome, 166780
FAH	93% | 93%	97% | 96%	99% | 99%	Tyrosinemia, type I, 276700
FAM111A	100% | 100%	98% | 98%	99% | 99%	Kenny-Caffey syndrome, type 2, 127000;Gracile bone dysplasia, 602361
FAM20A	99% | 99%	96% | 96%	99% | 99%	Amelogenesis imperfecta, type IG (enamel-renal syndrome), 204690
FAN1	95% | 94%	97% | 97%	99% | 99%	Interstitial nephritis, karyomegalic, 614817
FAT1	100% | 100%	97% | 97%	99% | 99%	
FGF23	100% | 100%	96% | 96%	100% | 100%	Tumoral calcinosis, hyperphosphatemic, familial, 2, 617993;Hypophosphatemic rickets, autosomal dominant, 193100
FN1	100% | 100%	97% | 97%	99% | 99%	Spondylometaphyseal dysplasia, corner fracture type, 184255;Glomerulopathy with fibronectin deposits 2, 601894
FOXC2	100% | 100%	93% | 93%	99% | 99%	Lymphedema-distichiasis syndrome, 153400;Lymphedema-distichiasis syndrome with renal disease and diabetes mellitus, 153400
FOXI1	100% | 100%	96% | 96%	98% | 98%	Enlarged vestibular aqueduct, 600791
FRAS1	100% | 100%	97% | 97%	99% | 99%	Fraser syndrome 1, 219000
FREM1	100% | 100%	97% | 97%	99% | 99%	Manitoba oculotrichoanal syndrome, 248450;Bifid nose with or without anorectal and renal anomalies, 608980;Trigonocephaly 2, 614485
FREM2	100% | 100%	97% | 97%	100% | 100%	Fraser syndrome 2, 617666;Cryptophthalmos, unilateral or bilateral, isolated, 123570
FXYD2	79% | 79%	96% | 96%	99% | 99%	Hypomagnesemia 2, renal, 154020
G6PC1	100% | 100%	98% | 98%	99% | 99%	Glycogen storage disease Ia, 232200
GALNT3	100% | 100%	98% | 98%	100% | 100%	Tumoral calcinosis, hyperphosphatemic, familial, 1, 211900
GANAB	100% | 100%	97% | 97%	99% | 99%	Polycystic kidney disease 3, 600666
GAPVD1	100% | 100%	98% | 98%	99% | 99%	

GATA3	100% | 100%	95% | 95%	98% | 98%	Hypoparathyroidism, sensorineural deafness, and renal dysplasia, 146255
GCM2	100% | 100%	98% | 98%	99% | 99%	Hypoparathyroidism, familial isolated 2, 618883;Hyperparathyroidism 4, 617343
GFRA1	94% | 94%	96% | 96%	99% | 99%	Renal hypodysplasia/aplasia 4, 619887
GLA	91% | 91%	99% | 99%	100% | 100%	Fabry disease, cardiac variant, 301500;Fabry disease, 301500
GLI3	99% | 99%	96% | 96%	99% | 99%	Greig cephalopolysyndactyly syndrome, 175700;Polydactyly, postaxial, types A1 and B, 174200;Pallister-Hall syndrome, 146510;Polydactyly, preaxial, type IV, 174700
GLIS2	100% | 100%	97% | 97%	98% | 98%	Nephronophthisis 7, 611498
GLIS3	100% | 100%	97% | 97%	100% | 100%	Diabetes mellitus, neonatal, with congenital hypothyroidism, 610199
GNA11	100% | 100%	95% | 95%	99% | 98%	Hypocalciuric hypercalcemia, type II, 145981;Hypocalcemia, autosomal dominant 2, 615361
GREB1L	100% | 100%	97% | 97%	99% | 99%	Deafness, autosomal dominant 80, 619274;Renal hypodysplasia/aplasia 3, 617805
GRHPR	87% | 87%	96% | 96%	99% | 99%	Hyperoxaluria, primary, type II, 260000
GRIP1	100% | 100%	97% | 97%	99% | 99%	Fraser syndrome 3, 617667
GSN	90% | 89%	97% | 97%	99% | 99%	Amyloidosis, Finnish type, 105120
HNF1A	99% | 99%	96% | 96%	98% | 98%	Hepatic adenoma, somatic, 142330;Diabetes mellitus, insulin-dependent, 20, 612520;{Diabetes mellitus, noninsulin-dependent, 2}, 125853;MODY, type III, 600496;{Diabetes mellitus, insulin-dependent}, 222100;Renal cell carcinoma, 144700
HNF1B	100% | 100%	98% | 98%	99% | 99%	Type 2 diabetes mellitus, 125853;Renal cysts and diabetes syndrome, 137920;{Renal cell carcinoma}, 144700
HNF4A	100% | 100%	97% | 97%	99% | 99%	Fanconi renotubular syndrome 4, with maturity-onset diabetes of the young, 616026;{Diabetes mellitus, noninsulin-dependent}, 125853;MODY, type I, 125850
HOGA1	100% | 100%	97% | 97%	99% | 99%	Hyperoxaluria, primary, type III, 613616
HPRT1	89% | 89%	99% | 99%	100% | 100%	Hyperuricemia, HPRT-related, 300323;Lesch-Nyhan syndrome, 300322
HPSE2	100% | 100%	97% | 97%	99% | 99%	Urofacial syndrome 1, 236730
HSD11B2	100% | 100%	95% | 95%	98% | 98%	Apparent mineralocorticoid excess, 218030
IFNG	100% | 100%	97% | 96%	100% | 100%	{Hepatitis C virus, response to therapy of}, 609532;{TSC2 angiomyolipomas, renal, modifier of}, 613254;{Aplastic anemia}, 609135;?Immunodeficiency 69, mycobacteriosis, 618963;{Tuberculosis, protection against}, 607948;{AIDS, rapid progression to}, 609423
IFT122	100% | 100%	97% | 97%	99% | 99%	Cranioectodermal dysplasia 1, 218330

IFT140	100% | 100%	96% | 96%	98% | 98%	{Polycystic kidney disease 9, susceptibility to}, 621164;Short-rib thoracic dysplasia 9 with or without polydactyly, 266920;Retinitis pigmentosa 80, 617781;Cranioectodermal dysplasia 5, 621180
IFT172	100% | 100%	97% | 97%	99% | 99%	Retinitis pigmentosa 71, 616394;Bardet-Biedl syndrome 20, 619471;Short-rib thoracic dysplasia 10 with or without polydactyly, 615630
IFT27	96% | 94%	97% | 97%	99% | 99%	Bardet-Biedl syndrome 19, 615996
IFT43	94% | 94%	97% | 97%	99% | 99%	?Cranioectodermal dysplasia 3, 614099;?Retinitis pigmentosa 81, 617871;Short-rib thoracic dysplasia 18 with polydactyly, 617866
IFT56	100% | 100%	98% | 98%	99% | 99%	Biliary, renal, neurologic, and skeletal syndrome, 619534
INF2	98% | 98%	92% | 92%	96% | 96%	Glomerulosclerosis, focal segmental, 5, 613237;Charcot-Marie-Tooth disease, dominant intermediate E, 614455
INPP5E	99% | 99%	93% | 93%	98% | 98%	Impaired intellectual development, truncal obesity, retinal dystrophy, and micropenis syndrome, 610156;Joubert syndrome 1, 213300
INTU	100% | 100%	98% | 98%	99% | 99%	?Orofaciodigital syndrome XVII, 617926;?Short-rib thoracic dysplasia 20 with polydactyly, 617925
INVS	100% | 100%	97% | 97%	99% | 99%	Nephronophthisis 2, infantile, 602088
IQCB1	96% | 96%	97% | 97%	99% | 99%	Senior-Loken syndrome 5, 609254
ITGA3	100% | 100%	97% | 97%	99% | 99%	Epidermolysis bullosa, junctional 7, with interstitial lung disease and nephrotic syndrome, 614748
ITGA8	100% | 100%	97% | 97%	100% | 100%	Renal hypodysplasia/aplasia 1, 191830
ITSN1	100% | 100%	97% | 97%	99% | 99%	
ITSN2	100% | 100%	97% | 97%	99% | 99%	
JAG1	100% | 100%	97% | 97%	99% | 99%	?Deafness, congenital heart defects, and posterior embryotoxon, 617992;Charcot-Marie-Tooth disease, axonal, type 2HH, 619574;Alagille syndrome 1, 118450;Tetralogy of Fallot, 187500
KANK1	98% | 98%	96% | 96%	99% | 99%	Cerebral palsy, spastic quadriplegic, 2, 612900
KANK2	99% | 99%	96% | 96%	99% | 99%	Nephrotic syndrome, type 16, 617783;Palmoplantar keratoderma and woolly hair, 616099
KATNIP	100% | 100%	97% | 97%	99% | 99%	Joubert syndrome 26, 616784
KCNJ1	100% | 100%	99% | 99%	99% | 99%	Bartter syndrome, type 2, 241200
KCNJ10	100% | 100%	98% | 98%	99% | 99%	Enlarged vestibular aqueduct, digenic, 600791;SESAME syndrome, 612780
KCNJ16	100% | 100%	98% | 98%	100% | 100%	Hypokalemic tubulopathy and deafness, 619406
KCNJ5	99% | 99%	97% | 97%	98% | 98%	Long QT syndrome 13, 613485;Hyperaldosteronism, familial, type III, 613677

KIF14	98% | 98%	98% | 98%	99% | 99%	Microcephaly 20, primary, autosomal recessive, 617914;?Meckel syndrome 12, 616258
KIF7	99% | 99%	95% | 95%	98% | 98%	Joubert syndrome 12, 200990;Acrocallosal syndrome, 200990;?Hydrolethalus syndrome 2, 614120;?Al-Gazali-Bakalinova syndrome, 607131
KIRREL1	100% | 100%	95% | 95%	99% | 99%	Nephrotic syndrome, type 23, 619201
KL	99% | 99%	96% | 96%	99% | 99%	?Tumoral calcinosis, hyperphosphatemic, familial, 3, 617994
KLHL3	100% | 100%	97% | 97%	100% | 100%	Pseudohypoaldosteronism, type IID, 614495
LAGE3	100% | 100%	98% | 98%	99% | 99%	Galloway-Mowat syndrome 2, X-linked, 301006
LAMA5	100% | 100%	96% | 96%	87% | 76%	Nephrotic syndrome, type 26, 620049;?Bent bone dysplasia syndrome 2, 620076
LAMB2	100% | 100%	97% | 97%	99% | 99%	Nephrotic syndrome, type 5, with or without ocular abnormalities, 614199;Pierson syndrome, 609049
LCAT	99% | 99%	96% | 96%	98% | 98%	Fish-eye disease, 136120;Norum disease, 245900
LMX1B	100% | 100%	96% | 96%	99% | 99%	Focal segmental glomerulosclerosis 10, 256020;Nail-patella syndrome, 161200
LRIG2	98% | 98%	97% | 97%	99% | 99%	Urofacial syndrome 2, 615112
LRP2	100% | 100%	97% | 97%	99% | 99%	Donnai-Barrow syndrome, 222448
LRP4	100% | 100%	97% | 97%	99% | 99%	?Myasthenic syndrome, congenital, 17, 616304;Sclerosteosis 2, 614305;Cenani-Lenz syndactyly syndrome, 212780
LRP5	100% | 100%	96% | 96%	98% | 98%	Osteopetrosis, autosomal dominant 1, 607634;Polycystic liver disease 4 with or without kidney cysts, 617875;Endosteal hyperostosis, 144750;Osteoporosis-pseudoglioma syndrome, 259770;[Bone mineral density variability 1, high bone mass], 601884;Exudative vitreoretinopathy 4, 601813
LYZ	100% | 100%	97% | 97%	99% | 99%	Amyloidosis, hereditary systemic 5, 620658
LZTFL1	100% | 100%	98% | 98%	100% | 100%	Bardet-Biedl syndrome 17, 615994
MAFB	100% | 100%	96% | 96%	99% | 99%	Duane retraction syndrome 3, 617041;Multicentric carpotarsal osteolysis syndrome, 166300
MAGED2	94% | 93%	98% | 98%	99% | 99%	Bartter syndrome, type 5, antenatal, transient, 300971
MAGI2	98% | 97%	96% | 96%	99% | 99%	Nephrotic syndrome, type 15, 617609
MAPKBP1	100% | 100%	97% | 97%	99% | 99%	Nephronophthisis 20, 617271
MKKS	100% | 100%	98% | 98%	100% | 100%	McKusick-Kaufman syndrome, 236700;Bardet-Biedl syndrome 6, 605231
MKS1	100% | 100%	97% | 97%	99% | 99%	Bardet-Biedl syndrome 13, 615990;Meckel syndrome 1, 249000;Joubert syndrome 28, 617121
MMACHC	100% | 100%	96% | 96%	99% | 99%	Methylmalonic aciduria and homocystinuria, cblC type, 277400
MOCOS	97% | 97%	96% | 96%	99% | 99%	Xanthinuria, type II, 603592

MYH9	97% | 97%	96% | 96%	99% | 99%	Macrothrombocytopenia and granulocyte inclusions with or without nephritis or sensorineural hearing loss, 155100;Deafness, autosomal dominant 17, 603622
MYO1E	100% | 100%	97% | 97%	99% | 99%	Glomerulosclerosis, focal segmental, 6, 614131
NCAPG2	100% | 100%	98% | 98%	100% | 100%	Khan-Khan-Katsanis syndrome, 618460
NEK1	100% | 100%	98% | 98%	99% | 99%	Short-rib thoracic dysplasia 6 with or without polydactyly, 263520;?Orofaciodigital syndrome II, 252100;{Amyotrophic lateral sclerosis, susceptibility to, 24}, 617892
NEK8	100% | 100%	97% | 97%	98% | 98%	Renal-hepatic-pancreatic dysplasia 2, 615415;Polycystic kidney disease 8, 620903;?Nephronophthisis 9, 613824
NEU1	100% | 100%	97% | 97%	99% | 99%	Sialidosis, type II, 256550;Sialidosis, type I, 256550
NHERF1	86% | 86%	96% | 96%	98% | 98%	Nephrolithiasis/osteoporosis, hypophosphatemic, 2, 612287
NOS1AP	100% | 100%	97% | 96%	100% | 100%	Nephrotic syndrome, type 22, 619155
NOTCH2	100% | 100%	98% | 98%	100% | 100%	Alagille syndrome 2, 610205;Hajdu-Cheney syndrome, 102500
NPHP1	100% | 100%	98% | 98%	99% | 99%	Joubert syndrome 4, 609583;Nephronophthisis 1, juvenile, 256100;Senior-Loken syndrome-1, 266900
NPHP3	99% | 99%	98% | 98%	100% | 100%	Nephronophthisis 3, 604387;Renal-hepatic-pancreatic dysplasia 1, 208540;Meckel syndrome 7, 267010
NPHP4	100% | 100%	96% | 96%	98% | 96%	Senior-Loken syndrome 4, 606996;Nephronophthisis 4, 606966
NPHS1	100% | 100%	97% | 97%	98% | 98%	Nephrotic syndrome, type 1, 256300
NPHS2	100% | 100%	96% | 96%	99% | 99%	Nephrotic syndrome, type 2, 600995
NR3C2	98% | 98%	94% | 94%	99% | 99%	Pseudohypoaldosteronism type I, autosomal dominant, 177735;Hypertension, early-onset, autosomal dominant, with exacerbation in pregnancy, 605115
NUP107	98% | 98%	97% | 97%	99% | 99%	?Ovarian dysgenesis 6, 618078;Galloway-Mowat syndrome 7, 618348;Nephrotic syndrome, type 11, 616730
NUP133	98% | 98%	97% | 97%	99% | 99%	?Galloway-Mowat syndrome 8, 618349;Nephrotic syndrome, type 18, 618177
NUP160	94% | 94%	96% | 96%	99% | 99%	?Nephrotic syndrome, type 19, 618178
NUP205	97% | 97%	97% | 97%	99% | 99%	?Nephrotic syndrome, type 13, 616893
NUP85	99% | 99%	96% | 96%	99% | 99%	Nephrotic syndrome, type 17, 618176
NUP93	95% | 95%	97% | 97%	99% | 99%	Nephrotic syndrome, type 12, 616892
NXF5				
OCRL	100% | 100%	99% | 99%	100% | 100%	Dent disease 2, 300555;Lowe syndrome, 309000
OFD1	100% | 100%	99% | 99%	100% | 100%	Simpson-Golabi-Behmel syndrome, type 2, 300209;?Retinitis pigmentosa 23, 300424;Orofaciodigital syndrome I, 311200;Joubert syndrome 10, 300804
OSGEP	100% | 100%	97% | 97%	99% | 99%	Galloway-Mowat syndrome 3, 617729

OXGR1	100% | 100%	97% | 97%	99% | 99%	Nephrolithiasis, calcium oxalate, 2, with nephrocalcinosis, 620374
PAX2	100% | 100%	96% | 96%	99% | 99%	Glomerulosclerosis, focal segmental, 7, 616002;Papillorenal syndrome, 120330
PBX1	100% | 100%	97% | 97%	100% | 100%	Congenital anomalies of kidney and urinary tract syndrome with or without hearing loss, abnormal ears, or developmental delay, 617641
PCBD1	100% | 100%	97% | 97%	99% | 99%	Hyperphenylalaninemia, BH4-deficient, D, 264070
PDE6D	100% | 100%	98% | 98%	99% | 99%	Joubert syndrome 22, 615665
PDSS2	100% | 100%	97% | 97%	99% | 99%	Coenzyme Q10 deficiency, primary, 3, 614652
PHEX	100% | 100%	99% | 99%	100% | 100%	Hypophosphatemic rickets, X-linked dominant, 307800
PKD1	99% | 99%	95% | 95%	85% | 72%	Polycystic kidney disease 1, 173900
PKD2	100% | 100%	96% | 96%	99% | 99%	Polycystic kidney disease 2, 613095
PKHD1	100% | 100%	97% | 97%	100% | 100%	Polycystic kidney disease 4, with or without hepatic disease, 263200
PLCE1	100% | 100%	97% | 97%	99% | 99%	Nephrotic syndrome, type 3, 610725
PMM2	95% | 95%	97% | 97%	99% | 99%	Congenital disorder of glycosylation, type Ia, 212065
PODXL	92% | 92%	94% | 94%	98% | 98%	
PTH1R	100% | 100%	96% | 96%	98% | 98%	Metaphyseal chondrodysplasia, Murk Jansen type, 156400;Eiken syndrome, 600002;Failure of tooth eruption, primary, 125350;Chondrodysplasia, Blomstrand type, 215045
PTPRO	100% | 100%	98% | 98%	100% | 100%	Nephrotic syndrome, type 6, 614196
RAD21	100% | 100%	97% | 97%	100% | 100%	Cornelia de Lange syndrome 4, 614701;?Mungan syndrome, 611376
REN	100% | 100%	97% | 97%	99% | 99%	Renal tubular dysgenesis, 267430;[Hyperproreninemia];Tubulointerstitial kidney disease, autosomal dominant, 4, 613092
RMND1	85% | 85%	97% | 97%	99% | 99%	Combined oxidative phosphorylation deficiency 11, 614922
RNU4ATAC				Roifman syndrome, 616651;Lowry-Wood syndrome, 226960;Microcephalic osteodysplastic primordial dwarfism, type I, 210710
ROBO2	100% | 100%	98% | 98%	100% | 100%	Vesicoureteral reflux 2, 610878
RPGRIP1L	100% | 100%	98% | 98%	100% | 100%	Joubert syndrome 7, 611560;Meckel syndrome 5, 611561;?COACH syndrome 3, 619113
RRAGD	100% | 100%	97% | 97%	99% | 99%	Hypomagnesemia 7, renal, with or without dilated cardiomyopathy, 620152
RRM2B	100% | 100%	98% | 98%	99% | 99%	Mitochondrial DNA depletion syndrome 8B (MNGIE type), 612075;Mitochondrial DNA depletion syndrome 8A (encephalomyopathic type with renal tubulopathy), 612075;Rod-cone dystrophy, sensorineural deafness, and Fanconi-type renal dysfunction, 268315;Progressive external ophthalmoplegia with mitochondrial DNA deletions, autosomal dominant 5, 613077

SALL1	100% | 100%	97% | 97%	99% | 99%	Townes-Brocks syndrome 1, 107480;Townes-Brocks branchiootorenal-like syndrome, 107480
SALL4	100% | 100%	97% | 97%	99% | 99%	?IVIC syndrome, 147750;Duane-radial ray syndrome, 607323
SARS2	100% | 100%	96% | 96%	98% | 98%	Hyperuricemia, pulmonary hypertension, renal failure, and alkalosis, 613845
SCARB2	100% | 100%	98% | 98%	99% | 99%	Epilepsy, progressive myoclonic 4, with or without renal failure, 254900
SCNN1A	100% | 100%	96% | 96%	98% | 98%	Pseudohypoaldosteronism, type IB1, autosomal recessive, 264350;?Liddle syndrome 3, 618126;Bronchiectasis with or without elevated sweat chloride 2, 613021
SCNN1B	100% | 100%	97% | 97%	99% | 99%	Bronchiectasis with or without elevated sweat chloride 1, 211400;Pseudohypoaldosteronism, type IB2, autosomal recessive, 620125;Liddle syndrome 1, 177200
SCNN1G	100% | 100%	96% | 96%	99% | 99%	Bronchiectasis with or without elevated sweat chloride 3, 613071;Pseudohypoaldosteronism, type IB3, autosomal recessive, 620126;Liddle syndrome 2, 618114
SDCCAG8	100% | 100%	97% | 97%	99% | 99%	Senior-Loken syndrome 7, 613615;Bardet-Biedl syndrome 16, 615993
SEC61A1	92% | 92%	94% | 94%	99% | 99%	Immunodeficiency, common variable, 15, 620670;?Neutropenia, severe congenital, 11, autosomal dominant, 620674;Tubulointerstitial kidney disease, autosomal dominant, 5, 617056
SGPL1	96% | 96%	97% | 97%	99% | 99%	RENI syndrome, 617575
SIX5	99% | 99%	93% | 93%	97% | 97%	Branchiootorenal syndrome 2, 610896
SLC12A1	96% | 96%	98% | 97%	99% | 99%	Bartter syndrome, type 1, 601678
SLC12A3	94% | 94%	95% | 95%	98% | 98%	Gitelman syndrome, 263800
SLC16A12	100% | 100%	98% | 98%	100% | 100%	Cataract 47, juvenile, with microcornea, 612018
SLC22A12	98% | 98%	93% | 93%	98% | 98%	Hypouricemia, renal, 220150
SLC26A1	100% | 100%	97% | 97%	98% | 98%	?Hypersulfaturia, 620372;?Nephrolithiasis, calcium oxalate, 1, 167030
SLC26A3	100% | 100%	97% | 97%	100% | 100%	Diarrhea 1, secretory chloride, congenital, 214700
SLC2A2	100% | 100%	97% | 97%	99% | 99%	Fanconi-Bickel syndrome, 227810;{Diabetes mellitus, noninsulin-dependent}, 125853
SLC2A9	99% | 99%	96% | 96%	99% | 99%	{Uric acid concentration, serum, QTL 2}, 612076;Hypouricemia, renal, 2, 612076
SLC34A1	100% | 100%	96% | 96%	98% | 98%	?Fanconi renotubular syndrome 2, 613388;Hypercalcemia, infantile, 2, 616963;Nephrolithiasis/osteoporosis, hypophosphatemic, 1, 612286
SLC34A3	99% | 99%	93% | 93%	97% | 95%	Hypophosphatemic rickets with hypercalciuria, 241530
SLC36A2	100% | 100%	96% | 96%	99% | 99%	[Iminoglycinuria], 242600;[Hyperglycinuria], 138500

SLC37A4	99% | 99%	95% | 95%	98% | 98%	Glycogen storage disease Ib, 232220;Congenital disorder of glycosylation, type IIw, 619525;Glycogen storage disease Ic, 232240
SLC3A1	96% | 96%	97% | 97%	99% | 99%	Cystinuria, 220100
SLC41A1	100% | 100%	97% | 97%	99% | 99%	?Nephronophthisis-like nephropathy 2, 619468
SLC4A1	100% | 100%	96% | 96%	99% | 99%	[Blood group, Swann], 601550;[Blood group, Wright], 112050;Distal renal tubular acidosis 1, 179800;[Blood group, Waldner], 112010;Spherocytosis, type 4, 612653;[Blood group, Froese], 601551;Distal renal tubular acidosis 4 with hemolytic anemia, 611590;{Malaria, resistance to}, 611162;Cryohydrocytosis, 185020;Ovalocytosis, SA type, 166900;[Blood group, Diego], 110500
SLC4A4	95% | 95%	98% | 98%	99% | 99%	Proximal renal tubular acidosis-ocular anomaly syndrome, 604278;Progressive macrocephaly-brain edema disorder, 621716
SLC5A2	100% | 100%	97% | 97%	99% | 99%	Renal glucosuria, 233100
SLC6A19	100% | 100%	96% | 96%	99% | 99%	Hartnup disorder, 234500
SLC6A20	98% | 97%	97% | 97%	99% | 99%	
SLC7A7	100% | 100%	96% | 96%	99% | 99%	Lysinuric protein intolerance, 222700
SLC7A9	99% | 99%	97% | 97%	98% | 98%	Cystinuria, 220100
SLC9A3	98% | 98%	92% | 92%	97% | 97%	Diarrhea 8, secretory sodium, congenital, 616868
SLIT3	100% | 100%	97% | 97%	99% | 99%	
SMARCAL1	96% | 96%	97% | 97%	99% | 99%	Schimke immunoosseous dysplasia, 242900
SOX17	100% | 100%	97% | 97%	99% | 99%	Vesicoureteral reflux 3, 613674;Pulmonary hypertension, primary, 7, 621248
STRA6	100% | 100%	96% | 96%	99% | 99%	Microphthalmia, syndromic 9, 601186;Microphthalmia, isolated, with coloboma 8, 601186
STX16	100% | 100%	97% | 97%	99% | 99%	Pseudohypoparathyroidism Ib, 603233
TBC1D8B	100% | 100%	99% | 99%	100% | 100%	Nephrotic syndrome, type 20, 301028
TBX18	100% | 100%	96% | 96%	99% | 99%	Congenital anomalies of kidney and urinary tract 2, 143400
TCTN1	90% | 90%	97% | 97%	99% | 99%	Joubert syndrome 13, 614173
TCTN2	99% | 99%	97% | 97%	99% | 99%	Joubert syndrome 24, 616654;?Meckel syndrome 8, 613885
TCTN3	100% | 100%	98% | 98%	99% | 99%	Joubert syndrome 18, 614815;Orofaciodigital syndrome IV, 258860
THBD	100% | 100%	90% | 90%	99% | 99%	Thrombophilia 12 due to thrombomodulin defect, 614486;{Hemolytic uremic syndrome, atypical, susceptibility to, 6}, 612926
TMEM107	99% | 99%	94% | 94%	97% | 97%	Orofaciodigital syndrome XVI, 617563;Meckel syndrome 13, 617562;?Joubert syndrome 29, 617562
TMEM138	91% | 91%	96% | 96%	99% | 99%	Joubert syndrome 16, 614465

TMEM216	99% | 99%	97% | 97%	98% | 98%	Joubert syndrome 2, 608091;Retinitis pigmentosa 98, 620996;Meckel syndrome 2, 603194
TMEM231	93% | 93%	95% | 95%	99% | 99%	Joubert syndrome 20, 614970;Meckel syndrome 11, 615397
TMEM237	99% | 99%	98% | 98%	99% | 99%	Joubert syndrome 14, 614424
TMEM260	95% | 95%	97% | 97%	99% | 99%	Structural heart defects and renal anomalies syndrome, 617478
TMEM67	96% | 96%	97% | 97%	99% | 99%	Nephronophthisis 11, 613550;{Bardet-Biedl syndrome 14, modifier of}, 615991;Joubert syndrome 6, 610688;Meckel syndrome 3, 607361;?RHYNS syndrome, 602152;COACH syndrome 1, 216360
TNS2	100% | 100%	96% | 96%	99% | 99%	
TNXB	93% | 93%	92% | 90%	98% | 98%	Ehlers-Danlos syndrome, classic-like, 1, 606408;Vesicoureteral reflux 8, 615963
TP53RK	100% | 100%	97% | 97%	99% | 99%	Galloway-Mowat syndrome 4, 617730
TPRKB	82% | 82%	97% | 97%	99% | 99%	Galloway-Mowat syndrome 5, 617731
TRAF3IP1	100% | 100%	95% | 95%	99% | 99%	
TRIM32	100% | 100%	97% | 97%	99% | 99%	?Bardet-Biedl syndrome 11, 615988;Muscular dystrophy, limb-girdle, autosomal recessive 8, 254110
TRPC6	100% | 100%	97% | 97%	100% | 100%	Glomerulosclerosis, focal segmental, 2, 603965
TRPM6	100% | 100%	98% | 98%	100% | 100%	Hypomagnesemia 1, intestinal, 602014
TSC1	100% | 100%	96% | 96%	99% | 99%	Focal cortical dysplasia, type II, somatic, 607341;Tuberous sclerosis-1, 191100;Lymphangioleiomyomatosis, 606690
TSC2	100% | 100%	97% | 97%	98% | 98%	Lymphangioleiomyomatosis, somatic, 606690;?Focal cortical dysplasia, type II, somatic, 607341;Tuberous sclerosis-2, 613254
TTC21B	98% | 98%	98% | 98%	100% | 100%	Short-rib thoracic dysplasia 4 with or without polydactyly, 613819;Nephronophthisis 12, 613820
TTC8	91% | 91%	98% | 98%	100% | 100%	Bardet-Biedl syndrome 8, 615985;?Retinitis pigmentosa 51, 613464
TULP3	93% | 93%	97% | 97%	99% | 99%	Hepatorenocardiac degenerative fibrosis, 619902
UMOD	89% | 89%	97% | 97%	99% | 99%	Tubulointerstitial kidney disease, autosomal dominant, 1, 162000
UPK3A	99% | 99%	96% | 96%	98% | 98%	
UQCC2	99% | 99%	97% | 97%	99% | 99%	Mitochondrial complex III deficiency, nuclear type 7, 615824
VDR	100% | 100%	96% | 96%	99% | 99%	Rickets, vitamin D-resistant, type IIA, 277440
VIPAS39	97% | 96%	96% | 96%	99% | 99%	Arthrogryposis, renal dysfunction, and cholestasis 2, 613404
VPS33B	100% | 100%	97% | 97%	99% | 99%	Keratoderma-ichthyosis-deafness syndrome, autosomal recessive, 620009;Cholestasis, progressive familial intrahepatic, 12, 620010;Arthrogryposis, renal dysfunction, and cholestasis 1, 208085

WDR19	100% | 100%	97% | 97%	99% | 99%	Nephronophthisis 13, 614377;Cranioectodermal dysplasia 4, 614378;Senior-Loken syndrome 8, 616307;Short-rib thoracic dysplasia 5 with or without polydactyly, 614376;?Spermatogenic failure 72, 619867
WDR35	100% | 100%	97% | 97%	100% | 100%	Short-rib thoracic dysplasia 7 with or without polydactyly, 614091;Cranioectodermal dysplasia 2, 613610
WDR72	100% | 100%	98% | 97%	99% | 99%	Amelogenesis imperfecta, type IIA3, 613211
WDR73	99% | 99%	96% | 96%	99% | 99%	Galloway-Mowat syndrome 1, 251300
WNK1	100% | 100%	96% | 96%	99% | 99%	Neuropathy, hereditary sensory and autonomic, type II, 201300;Pseudohypoaldosteronism, type IIC, 614492
WNK4	100% | 100%	96% | 96%	98% | 98%	Pseudohypoaldosteronism, type IIB, 614491
WNT4	100% | 100%	96% | 96%	99% | 99%	Mullerian aplasia and hyperandrogenism, 158330;SERKAL syndrome, 611812
WT1	99% | 99%	96% | 96%	99% | 99%	Mesothelioma, somatic, 156240;Meacham syndrome, 608978;Frasier syndrome, 136680;Nephrotic syndrome, type 4, 256370;Denys-Drash syndrome, 194080;Wilms tumor, type 1, 194070
XDH	100% | 100%	97% | 97%	99% | 99%	Xanthinuria, type I, 278300
XPNPEP3	100% | 100%	97% | 97%	99% | 99%	Nephronophthisis-like nephropathy 1, 613159
XPO5	100% | 100%	97% | 97%	99% | 99%	
ZMPSTE24	100% | 100%	98% | 98%	99% | 99%	Mandibuloacral dysplasia with type B lipodystrophy, 608612;Restrictive dermopathy 1, 275210
ZNF423	100% | 100%	96% | 96%	99% | 99%	Nephronophthisis 14, 614844;Joubert syndrome 19, 614844
ZNG1A	97% | 96%	94% | 93%	99% | 99%	