

El qCarrier Plus es un test de laboratorio desarrollado por qGenomics, en colaboración con Dexeus, que emplea tecnología de **secuenciación masiva** (next generation sequencing - NGS) para la detección de +9.000 mutaciones descritas en las bases de datos como causa de **+300 enfermedades recesivas**. El qCarrier Plus supone una mejora en cuanto a su antecesor en tanto que **analiza regiones codificantes completas**, evitando la necesidad de realizar en la mayoría de los casos un test genético distinto para determinar la compatibilidad entre individuos. La NGS nos permite abordar, en un sólo análisis, el estudio de distintos tipos de mutaciones: de nucleótido único (SNVs), pequeñas inserciones/delecciones, variantes de número de copia y ciertos reordenamientos.

CONDITION	OMIM	GENE	
● 17-beta-hydroxysteroid dehydrogenase X deficiency	300438	HSD17B10	XL
● 2-methylbutyrylglucosaminuria	610006	ACADSB	AR
● 3-Methylcrotonyl-CoA carboxylase 1 deficiency	210200	MCCC1	AR
● 3-Methylcrotonyl-CoA carboxylase 2 deficiency	210210	MCCC2	AR
● Aarskog-Scott syndrome; Mental retardation, X-linked 16	305400	FGD1	XL
● Achondrogenesis Ib	600972	SLC26A2	AR
● Achromatopsia-3	262300	CNGB3	AR
● Acyl-CoA dehydrogenase, medium chain, deficiency of	201450	ACADM	AR
● Acyl-CoA dehydrogenase, short-chain, deficiency of	201470	ACADS	AR
● Adrenal hyperplasia, congenital, due to 17-alpha-hydroxylase deficiency	202110	CYP17A1	AR
○ Adrenal hyperplasia, congenital, due to 21-hydroxylase deficiency	201910	CYP21A2	AR
● Adrenoleukodystrophy	300100	ABCD1	XL
● Alkaptonuria	203500	HGD	AR
● Allan-Herndon-Dudley syndrome	300523	SLC16A2	XL
● Alpha-methylacetoacetic aciduria	203750	ACAT1	AR
● Alpha-thalassemia/mental retardation syndrome	301040	ATRX	XL
● Alport syndrome, autosomal recessive	203780	COL4A4	AR
● Anauxetic dysplasia	607095	RMRP	AR
● Androgen insensitivity	300068	AR	XL
● Argininemia	207800	ARG1	AR
● Argininosuccinic aciduria	207900	ASL	AR
● Arts syndrome	301835	PRPS1	XL
● Aspartylglucosaminuria	208400	AGA	AR
● Ataxia with isolated vitamin E deficiency	277460	TTPA	AR
● Ataxia-telangiectasia	208900	ATM	AR
● Auditory neuropathy, autosomal recessive, 1	601071	OTOF	AR
● Autoimmune polyendocrinopathy syndrome , type I, with or without reversible metaphyseal dysplasia	240300	AIRE	AR
● Autosomal Recessive Polycystic Kidney Disease	263200	PKHD1	AR
● Bardet-Biedl syndrome 1	209900	BBS1	AR
● Bardet-Biedl syndrome 10	615987	BBS10	AR
● Bardet-Biedl syndrome 14; Joubert syndrome 5; Meckel syndrome 4; Senior-Loken syndrome 6	615991; 610188; 611134; 610189	CEP290	AR
● Bardet-Biedl syndrome 2	615981	BBS2	AR
● Bartter syndrome, type 4a	602522	BSND	AR
● Biotinidase deficiency	253260	BTD	AR
● Bjornstad syndrome	262000	BCS1L	AR
● Canavan disease	271900	ASPA	AR
● Carbamoylphosphate synthetase I deficiency	237300	CPS1	AR
● Carnitine deficiency, systemic primary	212140	SLC22A5	AR
● Carnitine-acylcarnitine translocase deficiency	212138	SLC25A20	AR
● Cerebrotendinous xanthomatosis	213700	CYP27A1	AR
● Ceroid lipofuscinosis, neuronal, 10	610127	CTSD	AR
● Ceroid lipofuscinosis, neuronal, 2	204500	TPP1	AR
● Ceroid lipofuscinosis, neuronal, 3	204200	CLN3	AR
● Ceroid lipofuscinosis, neuronal, 5	256731	CLN5	AR
● Ceroid lipofuscinosis, neuronal, 6	601780	CLN6	AR
● Ceroid lipofuscinosis, neuronal, 7	610951	MFSD8	AR
● Ceroid lipofuscinosis, neuronal, 8	600143	CLN8	AR
● Ceroid lipofuscinosis, neuronal, type 1	256730	PPT1	AR
● Charcot-Marie-Tooth disease, type 4B1	601382	MTMR2	AR

● Charcot-Marie-Tooth disease, type 4C	601596	SH3TC2	AR
● Charcot-Marie-Tooth disease, type 4D	601455	NDRG1	AR
● Charcot-Marie-Tooth Neuropathy Type 4A	214400	GDAP1	AR
● Cholestasis, benign recurrent intrahepatic, 2	601847	ABCB11	AR
● Citrullinemia	215700	ASS1	AR
● Citrullinemia, adult-onset type II; type II, neonatal-onset	603471; 605814	SLC25A13	AR
● Coffin-Lowry syndrome	303600	RPS6KA3	XL
● Combined malonic and methylmalonic acidemia	614265	ACSF3	AR
● Cone-rod dystrophy 3	604116	ABCA4	AR
● Cone-rod dystrophy, 604393 (Congenital Leber Amaurosis, 4)	604393	AIPL1	AR
○ Cone-rod dystrophy, X-linked, 1	304020	RPGR	XL
● Congenital disorder of glycosylation, type Ia	212065	PMM2	AR
● Corneal endothelial dystrophy and sensorineural deafness (CDPD)	217400	SLC4A11	AR
● CPT deficiency, hepatic, type IA	255120	CPT1A	AR
● CPT II deficiency, lethal neonatal	608836	CPT2	AR
● Cystathioninuria	219500	CTH	AR
● Cystic Fibrosis; Congenital bilateral absence of vas deferens	219700; 277180	CFTR	AR
● Cystinosis, atypical nephropathic	219800	CTNS	AR
● Cystinuria	220100	SLC3A1	AR
● Cystinuria	220100	SLC7A9	AR
● Deafness, autosomal recessive 12	601386	CDH23	AR
● Deafness, autosomal recessive 18A	602092	USH1C	AR
● Deafness, autosomal recessive 1A (DFNB1A); Deafness, digenic (GJB2/GJB3, GJB2/GJB6)	220290	GJB2	AR, DD
● Deafness, autosomal recessive 1B (DFNB1B); Deafness, digenic GJB2/GJB6	612645; 220290	GJB6	AR, DD
● Deafness, autosomal recessive 23	609533	PCDH15	AR
● Deafness, autosomal recessive 4, with enlarged vestibular aqueduct	600791	SLC26A4	AR
● Deafness, digenic, GJB2/GJB3	220290	GJB3	AR, DD
● Deafness, X-linked 2	304400	POU3F4	XL
● Dent disease 2	300555	OCRL	XL
● Dihydrofolate dehydrogenase deficiency	246900	DLD	AR
● Duchenne muscular dystrophy; Becker muscular dystrophy	310200; 300376	DMD	XL
● Dysprothrombinemia	613679	F2	AR
● Ehlers-Danlos syndrome, type VI	225400	PLOD1	AR
● Ellis-van Creveld syndrome	225500	EVC2	AR
● Emphysema due to Alpha1 Anti-Trypsin deficiency	613490	SERPINA1	AR
● Epidermolysis bullosa dystrophica, AR	226600	COL7A1	AR
● Epidermolysis bullosa, junctional, Herlitz type; non-Herlitz type	226700; 226650	LAMB3	AR
● Epidermolysis bullosa, junctional, Herlitz type; non-Herlitz type	226700; 226650	LAMC2	AR
● Epilepsy, X-linked, with variable learning disabilities and behavior disorders	300491	SYN1	XL
● Epileptic encephalopathy, early infantile, 1	308350	ARX	XL
● Ethylmalonic encephalopathy	602473	ETHE1	AR
● Fabry disease	301500	GLA	XL
● Factor V deficiency	227400	F5	AR

CONDITION	OMIM	GENE	
● Factor XI deficiency, autosomal dominant & recessive	612416	F11	AR, AD
● Familial Mediterranean fever, AR	249100	MEFV	AR
● Fanconi anemia	227650	FANCA	AR
● Fanconi anemia, complementation group C	227645	FANCC	AR
● Favism	134700	G6PD	XL
● Folate malabsorption, hereditary	229050	SLC46A1	AR
● Fragile X syndrome	300624	FMR1	XL
● Friedreich ataxia with retained reflexes	229300	FXN	AR
● Fructose intolerance	229600	ALDOB	AR
● Fumarase deficiency	606812	FH	AR
● Galactokinase deficiency with cataracts	230200	GALK1	AR
● Galactose epimerase deficiency	230350	GALE	AR
● Galactosemia	230400	GALT	AR
● Gaucher disease, perinatal lethal	608013	GBA	AR
● Glutamate formiminotransferase deficiency	229100	FTCD	AR
● Glutaric acidemia IIA	231680	ETFA	AR
● Glutaric acidemia IIB	231680	ETFB	AR
● Glutaric acidemia IIC	231680	ETFDH	AR
● Glutaricaciduria, type I	231670	GCDH	AR
● Glycine encephalopathy	605899	AMT	AR
● Glycine encephalopathy	605899	GLDC	AR
● Glycine N-methyltransferase deficiency	606664	GNMT	AR
● Glycogen storage disease Ia	232200	G6PC	AR
● Glycogen storage disease Ib	232220	SLC37A4	AR
● Glycogen storage disease II / Pompe Disease	232300	GAA	AR
● Glycogen storage disease IIIa	232400	AGL	AR
● Glycogen storage disease IV	232500	GBE1	AR
● GM1-gangliosidosis, types I, II and III	230500; 230600; 230650	GLB1	AR
● Goldmann-Favre syndrome	268100	NR2E3	AR
● HARP syndrome	607236	PANK2	AR
● Hartnup disorder	234500	SLC6A19	AR
● Heimler syndrome, type 2	616617	PEX6	AR
● Hemochromatosis, type 3	604250	TFR2	AR
● Hemochromatosis: Type 2A; HFE2 Related	602390	HFE2	AR
○ Hemophilia A	306700	F8	XL
● Hemophilia B	306900	F9	XL
● Histidinemia	235800	HAL	AR
● HMG-CoA lyase deficiency	246450	HMGCL	AR
● Holocarboxylase synthetase deficiency	253270	HLCS	AR
● Homocystinuria due to MTHFR deficiency	236250	MTHFR	AR
● Homocystinuria-megaloblastic anemia, cbl E type	236270	MTRR	AR
● Homocystinuria, B6-responsive and nonresponsive types	236200	CBS	AR
● Homocystinuria, cblD type, variant 1 / Methylmalonic aciduria and homocystinuria, cblD type / Methylmalonic aciduria, cblD type, variant 2	277410; 277410; 611935	MMADHC	AR
● Hyper-IgD syndrome; Mevalonic aciduria	260920; 610377	MVK	AR
● Hypercholesterolemia, familial	143890	LDLR	AR, CD
● Hypercholesterolemia, familial, autosomal recessive	603813	LDLRAP1	AR
● Hyperinsulinemic hypoglycemia, familial, Type 2	601820	KCNJ11	AD, AR
● Hypermethioninemia due to adenosine kinase deficiency	614300	ADK	AR
● Hypermethioninemia with deficiency of S-adenosylhomocysteine hydrolase	613752	AHCY	AR
● Hypermethioninemia, persistent, autosomal dominant, due to methionine adenosyltransferase I/III deficiency	250850	MAT1A	AR
● Hyperoxaluria, primary, type I	259900	AGXT	AR
● Hyperoxaluria, primary, type II	260000	GRHPR	AR
● Hyperoxaluria, primary, type III	613616	HOGA1	AR
● Hyperphenylalaninemia, BH4-deficient, A	261640	PTS	AR
● Hyperphenylalaninemia, BH4-deficient, C	261630	QDPR	AR
● Hyperphenylalaninemia, BH4-deficient, D	264070	PCBD1	AR

● Hyperprolinemia, type II	239510	ALDH4A1	AR
● Hypogonadotropic hypogonadism 7 without anosmia	146110	GNRHR	AR
● Hypothyroidism, congenital, nongoitrous 4	275100	TSHB	AR
● Hypothyroidism, congenital, nongoitrous, 1	275200	TSHR	AR
● Ichthyosis, congenital, autosomal recessive 1	242300	TGM1	AR
● Immunodeficiency, X-linked, with hyper-IgM	308230	CD40LG	XL
● Isovaleric acidemia	243500	IVD	AR
● Joubert syndrome 2	608091	TMEM216	AR
● Joubert syndrome 3	608629	AHI1	AR
● Joubert syndrome 4	609583	NPHP1	AR
● Joubert syndrome 8	612291	ARL13B	AR
● Krabbe disease	245200	GALC	AR
● LCHAD deficiency	609016	HADHA	AR
● Leber congenital amaurosis 1	204000	GUCY2D	AR
● Leber congenital amaurosis 13	612712	RDH12	AR
● Leber congenital amaurosis 2	204100	RPE65	AR
● Leber congenital amaurosis 8	613835	CRB1	AR
● Leigh syndrome, due to COX deficiency	256000	SURF1	AR
● Leigh syndrome, French-Canadian type	220111	LRPPRC	AR
● limb-girdle muscular dystrophy type 2B	253601	DYSF	AR
● Lipoid adrenal hyperplasia	201710	STAR	AR
● Lissencephaly, X-linked	300067	DCX	XL
● Macular corneal dystrophy	217800	CHST6	AR
● Malonyl-CoA decarboxylase deficiency	248360	MLYCD	AR
● Mannosidosis, alpha-, types I and II	248500	MAN2B1	AR
● Maple syrup urine disease, type Ia	248600	BCKDHA	AR
● Maple syrup urine disease, type Ib	248600	BCKDHB	AR
● Maple syrup urine disease, type II	248600	DBT	AR
● MASA syndrome / CRASH syndrome	303350	L1CAM	XL
● McArdle disease / Glycogen Storage Disease: Type V	232600	PYGM	AR
● Meckel syndrome 1	249000	MKS1	AR
● Mental retardation and microcephaly with pontine and cerebellar hypoplasia	300749	CASK	XL
● Mental retardation syndrome, X-linked, Siderius type	300263	PHF8	XL
● Mental retardation, X-linked	300486	OPHN1	XL
● Mental retardation, X-linked 1/78	309530	IQSEC2	XL
● Mental retardation, X-linked 12/35	300957	THOC2	XL
● Mental retardation, X-linked 21/34	300143	IL1RAPL1	XL
● Mental retardation, X-linked 30/47	300558	PAK3	XL
● Mental retardation, X-linked 41	300849	GDI1	XL
● Mental retardation, X-linked 58	300210	TSPAN7	XL
● Mental retardation, X-linked 63	300387	ACSL4	XL
● Mental retardation, X-linked 9	309549	FTSJ1	XL
● Mental retardation, X-linked 90	300850	DLG3	XL
● Mental retardation, X-linked 94	300699	GRIA3	XL
● Mental retardation, X-linked 97	300803	ZNF711	XL
● Mental retardation, X-linked 99	300919	USP9X	XL
● Mental retardation, X-linked syndromic 5	304340	AP1S2	XL
● Mental retardation, X-linked syndromic, Raymond type	300799	ZDHC9	XL
● Mental retardation, X-linked syndromic, Turner type	300706	HUWE1	XL
● Mental retardation, X-linked, Asperger syndrome susceptibility, X-linked	300427	NLGN4X	XL
● Mental retardation, X-linked, FRAAXE type	309548	AFF2	XL
● Mental retardation, X-linked, syndromic 13	300055	MECP2	XL
● Mental retardation, X-linked, syndromic 14	300676	UPF3B	XL
● Mental retardation, X-linked, syndromic 15	300354	CUL4B	XL
● Mental retardation, X-linked, syndromic, Claes-Jensen type	300534	KDM5C	XL
● Metachromatic leukodystrophy	250100	ARSA	AR
● Methylmalonic aciduria and homocystinuria, cblC type	277400	MMACHC	AR
● Methylmalonic aciduria and homocystinuria, cblF type	277380	LMBRD1	AR
● Methylmalonic aciduria and homocystinuria, cblJ type	614857	ABCD4	AR
● Methylmalonic aciduria, mut(0) type	251000	MUT	AR
● Methylmalonic aciduria, vitamin B12-responsive	251100	MMAA	AR

● Patología cuyos exones están completamente cubiertos. ○ Patología en qué sólo se cubren determinadas mutaciones. AR: herencia autosómica recesiva; AD: herencia autosómica dominante; XL: herencia ligada al cromosoma X; DD: patron de herencia digénico; CD: herencia co-dominante

CONDITION	OMIM	GENE	
Methylmalonic aciduria, vitamin B12-responsive, due to defect in synthesis of adenosylcobalamin, cblB complementation type	251110	MMAB	AR
Methylmalonyl-CoA epimerase deficiency	251120	MCEE	AR
Microphthalmia, isolated 3	611038	RAX	AR
Mucopolidosis II and III, alpha/beta	252500; 252600	GNPTAB	AR
Mucopolidosis IV	252650	MCOLN1	AR
Mucopolysaccharidosis type IIIA (Sanfilippo A)	252900	SGSH	AR
Mucopolysaccharidosis Ih	607014	IDUA	AR
Mucopolysaccharidosis II	309900	IDS	XL
Mucopolysaccharidosis IVA	253000	GALNS	AR
Mucopolysaccharidosis type IIIB (Sanfilippo B)	252920	NAGLU	AR
Mucopolysaccharidosis type IIIC (Sanfilippo C)	252930	HGSNAT	AR
Mucopolysaccharidosis type IIID	252940	GNS	AR
Mucopolysaccharidosis type VI (Maroteaux-Lamy)	253200	ARSB	AR
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 1	236670	POMT1	AR
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 2	613150	POMT2	AR
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 3	253280	POMGNT1	AR
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 5	613153	FKRP	AR
Muscular dystrophy, limb-girdle, type 2A	253600	CAPN3	AR
Muscular dystrophy, limb-girdle, type 2D	608099	SGCA	AR
Muscular dystrophy, limb-girdle, type 2E	604286	SGCB	AR
Myotonia congenita, dominant; recessive	160800; 255700	CLCN1	AR, AD
Nemaline myopathy 2, autosomal recessive	256030	NEB	AR
Nephrotic syndrome, type 1	256300	NPHS1	AR
Neutropenia, severe congenital 3, autosomal recessive	610738	HAX1	AR
Niemann-Pick disease, type A	257200	SMPD1	AR
Niemann-Pick disease, type C1	257220	NPC1	AR
Niemann-pick disease, type C2	607625	NPC2	AR
Nijmegen Breakage Syndrome (Ataxia telangiectasia, type 1)	251260	NBN	AR
Norrie disease	310600	NDP	XL
Nystagmus 6, congenital, X-linked	300814	GPRI43	XL
Ornithine transcarbamylase deficiency	311250	OTC	XL
Osteogenesis imperfecta, type VIII	610915	P3H1	AR
Pelizaeus-Merzbacher disease	312080	PLP1	XL
Peroxisomal acyl-CoA oxidase deficiency	264470	ACOX1	AR
Peroxisome biogenesis disorder 1A (Zellweger)	214100	PEX1	AR
Peroxisome biogenesis disorder 6A (Zellweger)	614870	PEX10	AR
Peroxisome biogenesis disorder 9B; Rhizomelic chondroplasia punctata, type I	614879; 215100	PEX7	AR
Phenylketonuria	261600	PAH	AR
Phosphoglycerate kinase 1 deficiency	300653	PGK1	XL
Pituitary hormone deficiency, combined, 2	262600	PROP1	AR
Primary ciliary dyskinesia	608644	DNAH5	AR
Propionic acidemia	606054	PCCA	AR
Propionic acidemia	606054	PCCB	AR
Pyruvate carboxylase deficiency	266150	PC	AR
Pyruvate dehydrogenase E1-beta deficiency	614111	PDHB	AR
Renpenning syndrome	309500	PQBP1	XL
Retinitis pigmentosa 2	312600	RP2	XL
Retinitis pigmentosa 25	602772	EYS	AR
Retinitis pigmentosa 26	608380	CERKL	AR
Retinitis pigmentosa 39	613809	USH2A	AR
Retinitis pigmentosa 43	613810	PDE6A	AR
Retinitis pigmentosa 45	613767	CNGB1	AR
Retinitis pigmentosa 46	612572	IDH3B	AR
Retinitis pigmentosa 49	613756	CNGA1	AR
Retinitis pigmentosa 59	613861	DHDDS	AR
Retinoschisis, X-linked	312700	RS1	XL
Rhizomelic chondrodysplasia punctata, type 3	600121	AGPS	AR
Sandhoff disease, infantile, juvenile, and adult forms	268800	HEXB	AR

● SCID, autosomal recessive, T-negative/B-positive type	600802	JAK3	AR
● Segawa syndrome, recessive	605407	TH	AR
● Severe combined immunodeficiency due to ADA deficiency	102700	ADA	AR
● Severe combined immunodeficiency, X-linked	300400	IL2RG	XL
● Smith-Lemli-Opitz syndrome	270400	DHCR7	AR
● Spastic ataxia, Charlevoix-Saguenay type (ARSACS)	270550	SACS	AR
● Spastic paraplegia 11, autosomal recessive	604360	SPG11	AR
● Spastic paraplegia 7, autosomal recessive	607259	SPG7	AR
○ Spinal muscular atrophy, type I	253300	SMN1	AR
● Tay-Sachs; GM2-gangliosidosis, several forms	272800	HEXA	AR
● Thalassemias, alpha-	604131	HBA1	AR, AD
● Thalassemias, alpha-	604131	HBA2	AR, AD
● Thalassemias, beta-	613985	HBB	AR
● Thrombocytopenia, congenital amegakaryocytic	604498	MPL	AR
● Thyroid dysmorphogenesis 6	607200	DUOX2	AR
● Thyroid dysmorphogenesis 1	274400	SLC5A5	AR
● Thyroid dysmorphogenesis 2A	274500	TPO	AR
● Thyroid dysmorphogenesis 3	274700	TG	AR
● Thyroid dysmorphogenesis 4	274800	IYD	AR
● Thyroid dysmorphogenesis 5	274900	DUOXA2	AR
● Thyroid hormone resistance	274700	THRB	AR
● Treacher Collins syndrome 3	248390	POLR1C	AR
● Trifunctional protein deficiency	609015	HADHB	AR
● Tyrosinemia, type I	276700	FAH	AR
● Tyrosinemia, type II	276600	TAT	AR
● Usher syndrome, type 1B; Deafness, autosomal dominant 11	276900; 601317	MYO7A	AR, AD
● Usher syndrome, type 1G	606943	USH1G	AR
● Usher syndrome, type 2D / Deafness, autosomal recessive 31	611383	WHRN	AR
● Usher syndrome, type 3A	276902	CLRN1	AR
● Ventricular tachycardia, catecholaminergic polymorphic, 2	611938	CASQ2	AR
● Ventricular tachycardia, catecholaminergic polymorphic, 5, with or without muscle weakness	615441	TRDN	AR
● VLCAD deficiency	201475	ACADVL	AR
● Walker-Warburg syndrome, Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type A, 4	253800	FKTN	AR
● Wilson disease	277900	ATP7B	AR
● Wolman disease (lysosomal acid lipase deficiency)	278000	LIPA	AR
● X-linked mental retardation (XLMR) associated with macrocephaly	300659	BRWD3	XL



Para más información puede contactarnos en:

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El análisis se centra en exones procedentes de la anotación de referencia RefSeq. Ciertos exones de transcritos alternativos de algunos genes no pueden ser anali-