

dPCR CNV Probe Assays

Assay/target list

dPCR Copy Number Variation (CNV) Probe Assays enable specific, accurate, reproducible and easy-to-interpret analysis of copy number alterations for individual genes or regions of interest. Assays for more than 200 targets have been PCR wet-lab-validated. The dPCR CNV Probe Assays are available in a tube format as a ready-to-use, 20x-concentrated assay. The tube contains the primer pair and a hydrolysis probe for use with the QIAcuity Probe PCR Kit (DNA targets), the QIAcuity Digital PCR System and QIAcuity Nanoplates. The dPCR CNV Probe Assays are available in 6 different dyes: FAM, HEX, ATTO 550, ROX, Cy5, and ATTO 700. This flexibility allows the mixing and matching of assays for multiplex analysis of up to twelve targets in a single dPCR reaction. Use of Cy5/ATTO 700 assays is only possible in combination with the QIAcuity High Multiplex Probe PCR Kit and QIAcuity Software Suite 3.0 or newer. Multiple assays can be combined in a multiplex reaction, but cross-reactivity has not been tested for all assay combinations.

Additionally, a custom design tool is available on GeneGlobe to address customized assay needs outside of the wet-lab-tested assay offering.

More information on the dPCR Probe CNV Assays can be found at geneglobe.qiagen.com/applications/digital-pcr.

Reference Assays

Gene Symbol	Ensembl Gene ID	Amplicon Length	GeneGlobe ID	Wet-lab verified
AGO1	ENSG00000092847	82	DCR0000536	Yes
AP3B1	ENSG00000132842	79	DCR0000238	Yes
PTBP2	ENSG00000117569	102	DCR0000606	Yes
RPL32	ENSG00000144713	79	DCR0000605	Yes
RPP30	ENSG00000148688	107	DCR0000181	Yes
RPPH1	ENSG00000277209	101	DCR0000609	Yes
TERT	ENSG00000164362	113	DCR0000186	Yes

Centromeric Reference Assays

Gene Symbol	Ensembl Gene ID	Amplicon Length	GeneGlobe ID	Wet-lab verified
ANKRD30A	ENSG00000148513	146	DCC0000413	Yes
ANKRD30B	ENSG00000180777	119	DCC0000510	Yes
DST	ENSG00000151914	103	DCC0000418	Yes
EPHA3	ENSG00000044524	120	DCC0000513	Yes
FRYL	ENSG00000075539	119	DCC0000368	Yes
HAO2	ENSG00000116882	93	DCC0000473	Yes
HCN1	ENSG00000164588	84	DCC0000426	Yes
ID1	ENSG00000125968	95	DCC0000173	Yes
IGFBPL1	ENSG00000137142	74	DCC0000481	Yes

IL17RA	ENSG00000177663	76	DCC0000194	Yes
IRAK4	ENSG00000198001	101	DCC0000155	Yes
KBTBD4	ENSG00000123444	136	DCC0000542	Yes
MRPS5	ENSG00000144029	111	DCC0000410	Yes
NIPA1	ENSG00000170113	70	DCC0000045	Yes
PLEKHF1	ENSG00000166289	150	DCC0000430	Yes
RBM11	ENSG00000185272	119	DCC0000456	Yes
RNF170	ENSG00000120925	115	DCC0000093	Yes
SPIN4	ENSG00000186767	68	DCC0000464	Yes
TTC5	ENSG00000136319	94	DCC0000398	Yes
USP9Y	ENSG00000114374	80	DCC0000388	Yes
VOPPI	ENSG00000154978	112	DCC0000420	Yes
WSB1	ENSG00000109046	112	DCC0000382	Yes
ZMYM2	ENSG00000121741	71	DCC0000390	Yes
ZNF843	ENSG00000176723	91	DCC0000446	Yes

Gene of Interest Assays

Gene Symbol	Ensembl Gene ID	Amplicon Length	GeneGlobe ID	Wet-lab verified
ABCA1	ENSG00000165029	102	DCG0000428	Yes
ABCA3	ENSG00000167972	107	DCG0000433	Yes
ABL1	ENSG00000097007	72	DCG0000072	Yes

ADSL	ENSG00000239900	63	DCG0000228	Yes
AGO1	ENSG00000092847	82	DCG0000536	Yes
AKT1	ENSG00000142208	111	DCG0000600	Yes
AKT2	ENSG00000105221	103	DCG0000604	Yes
AKT3	ENSG00000117020	111	DCG0000092	Yes
ALDH1B1	ENSG00000137124	81	DCG0000497	Yes
ALK	ENSG00000171094	138	DCG0000437	Yes
AMY1A	ENSG00000237763	74	DCG0000357	Yes
ANKRD30A	ENSG00000148513	146	DCG0000413	Yes
ANKRD30B	ENSG00000180777	119	DCG0000510	Yes
AP3B1	ENSG00000132842	79	DCG0000238	Yes
APC	ENSG00000134982	116	DCG0000025	Yes
APP	ENSG00000142192	64	DCG0000031	Yes
AR	ENSG00000169083	116	DCG0000043	Yes
ARID1A	ENSG00000117713	73	DCG0000273	Yes
ARL13B	ENSG00000169379	113	DCG0000539	Yes
ARPC1A	ENSG00000241685	116	DCG0000159	Yes
ATM	ENSG00000149311	80	DCG0000037	Yes
B2M	ENSG00000166710	180	DCG0000603	Yes
BCL2	ENSG00000171791	84	DCG0000597	Yes

BMPR1A	ENSG00000107779	100	DCG0000378	Yes
BRCA1	ENSG00000012048	84	DCG0000364	Yes
BRCA2	ENSG00000139618	146	DCG0000177	Yes
CCL3L3	ENSG00000276085	91	DCG0000615	Yes
CCND1	ENSG00000110092	107	DCG0000595	Yes
CCNE1	ENSG00000105173	170	DCG0000613	Yes
CD44	ENSG00000026508	150	DCG0000231	Yes
CDH1	ENSG00000039068	139	DCG0000061	Yes
CDH18	ENSG00000145526	76	DCG0000035	Yes
CDK4	ENSG00000135446	88	DCG0000281	Yes
CDK5	ENSG00000164885	64	DCG0000135	Yes
CDKN1B	ENSG00000111276	71	DCG0000234	Yes
CDKN2A	ENSG00000147889	133	DCG0000476	Yes
CDKN2B	ENSG00000147883	89	DCG0000128	Yes
CDKN2C	ENSG00000123080	150	DCG0000097	Yes
CREBBP	ENSG00000005339	80	DCG0000360	Yes
CTNNB1	ENSG00000168036	84	DCG0000042	Yes
CTNND1	ENSG00000198561	120	DCG0000156	Yes
DCC	ENSG00000187323	94	DCG0000593	Yes
DCUN1D4	ENSG00000109184	95	DCG0000576	Yes

DEFB4A	ENSG00000171711	115	DCG0000351	Yes
DOCK8	ENSG00000107099	117	DCG0000082	Yes
DOP1B	ENSG00000142197	76	DCG0000032	Yes
DPP10	ENSG00000175497	99	DCG0000047	Yes
DST	ENSG00000151914	103	DCG0000418	Yes
DUSP6	ENSG00000139318	146	DCG0000116	Yes
EGFR	ENSG00000146648	141	DCG0000180	Yes
EML4-AS1	ENSG00000224875	109	DCG0000548	Yes
EMSY	ENSG00000158636	101	DCG0000133	Yes
EPHA3	ENSG00000044524	120	DCG0000513	Yes
ERBB2	ENSG00000141736	110	DCG0000218	Yes
ERBB3	ENSG00000065361	83	DCG0000263	Yes
ERBB4	ENSG00000178568	91	DCG0000145	Yes
ETS2	ENSG00000157557	116	DCG0000422	Yes
EZH2	ENSG00000106462	115	DCG0000080	Yes
FANCA	ENSG00000187741	92	DCG0000153	Yes
FAT1	ENSG00000083857	92	DCG0000374	Yes
FEZ1	ENSG00000149557	85	DCG0000129	Yes
FGD1	ENSG00000102302	82	DCG0000313	Yes
FGFR1	ENSG00000077782	129	DCG0000207	Yes

FGFR2	ENSG00000066468	118	DCG0000004	Yes
FHIT	ENSG00000189283	119	DCG0000050	Yes
FLRT2	ENSG00000185070	103	DCG0000148	Yes
FLT1	ENSG00000102755	82	DCG0000013	Yes
FLT3	ENSG00000122025	94	DCG0000392	Yes
FLT4	ENSG00000037280	82	DCG0000261	Yes
FRYL	ENSG00000075539	119	DCG0000368	Yes
FYN	ENSG00000010810	122	DCG0000055	Yes
GATA1	ENSG00000102145	69	DCG0000342	Yes
GATA2	ENSG00000179348	104	DCG0000343	Yes
GATA4	ENSG00000136574	78	DCG0000110	Yes
GATA6	ENSG00000141448	98	DCG0000239	Yes
GBA	ENSG00000177628	64	DCG0000341	Yes
GIN1	ENSG00000101003	129	DCG0000167	Yes
GNAS	ENSG00000087460	103	DCG0000068	Yes
GREB1L	ENSG00000141449	98	DCG0000408	Yes
GRM7	ENSG00000196277	93	DCG0000154	Yes
HACE1	ENSG00000085382	85	DCG0000008	Yes
HAO2	ENSG00000116882	93	DCG0000473	Yes
HCN1	ENSG00000164588	84	DCG0000426	Yes

Hk2	ENSMUSG00000000628	94	DCG0000607	Yes
HNF1A	ENSG00000135100	97	DCG0000105	Yes
HNF1B	ENSG00000275410	105	DCG0000312	Yes
HOXA9	ENSG00000078399	80	DCG0000372	Yes
HRAS	ENSG00000174775	103	DCG0000612	Yes
HSPA9	ENSG00000113013	96	DCG0000019	Yes
ID1	ENSG00000125968	95	DCG0000173	Yes
IDE	ENSG00000119912	67	DCG0000022	Yes
IDH1	ENSG00000138413	101	DCG0000283	Yes
IDH2	ENSG00000182054	81	DCG0000291	Yes
IDS	ENSG00000010404	82	DCG0000161	Yes
IGF1R	ENSG00000140443	79	DCG0000119	Yes
IGF2R	ENSG00000197081	83	DCG0000051	Yes
IGFBPL1	ENSG00000137142	74	DCG0000481	Yes
IKZF1	ENSG00000185811	117	DCG0000460	Yes
IL17RA	ENSG00000177663	76	DCG0000194	Yes
IQGAP1	ENSG00000140575	78	DCG0000029	Yes
IRAK4	ENSG00000198001	101	DCG0000155	Yes
IRGM	ENSG00000237693	87	DCG0000253	Yes
JAK2	ENSG00000096968	104	DCG0000602	Yes

JUN	ENSG00000177606	109	DCG0000596	Yes
KBTBD4	ENSG00000123444	136	DCG0000542	Yes
KDR	ENSG00000128052	107	DCG0000023	Yes
KEL	ENSG00000197993	149	DCG0000608	Yes
KHDRBS2	ENSG00000112232	83	DCG0000470	Yes
KIF21A	ENSG00000139116	67	DCG0000554	Yes
KIT	ENSG00000157404	75	DCG0000040	Yes
KRAS	ENSG00000133703	119	DCG0000104	Yes
LAMB1	ENSG00000091136	84	DCG0000010	Yes
LCP1	ENSG00000136167	98	DCG0000026	Yes
LIPA	ENSG00000107798	78	DCG0000084	Yes
LMNA	ENSG00000160789	143	DCG0000241	Yes
LMNB1	ENSG00000113368	80	DCG0000020	Yes
LRATD2	ENSG00000168672	130	DCG0000140	Yes
LRRC4C	ENSG00000148948	109	DCG0000036	Yes
MAG11	ENSG00000151276	86	DCG0000038	Yes
MAG12	ENSG00000187391	78	DCG0000049	Yes
MAP2K1	ENSG00000169032	92	DCG0000304	Yes
MAP2K4	ENSG00000065559	114	DCG0000264	Yes
MAP3K8	ENSG00000107968	140	DCG0000611	Yes

MAPK1	ENSG00000100030	136	DCG0000616	Yes
MDM2	ENSG00000135679	99	DCG0000590	Yes
MET	ENSG00000105976	83	DCG0000015	Yes
MLH1	ENSG00000076242	71	DCG0000005	Yes
MRPS5	ENSG00000144029	111	DCG0000410	Yes
MRTFB	ENSG00000186260	138	DCG0000614	Yes
MSH2	ENSG00000095002	76	DCG0000208	Yes
MSH6	ENSG00000116062	116	DCG0000021	Yes
MTOR	ENSG00000198793	118	DCG0000594	Yes
MTX1P1	ENSG00000236675	70	DCG0000582	Yes
MUC5B	ENSG00000117983	74	DCG0000484	Yes
Multi-Copy Target 4NS1C	ENSG00000253326		DCG0000621	Yes
MYC	ENSG00000136997	65	DCG0000112	Yes
MYT1L	ENSG00000186487	74	DCG0000150	Yes
NBEA	ENSG00000172915	65	DCG0000244	Yes
NCOR1	ENSG00000141027	132	DCG0000120	Yes
NF1	ENSG00000196712	101	DCG0000293	Yes
NF2	ENSG00000186575	83	DCG0000462	Yes
NFAT5	ENSG00000102908	74	DCG0000014	Yes
NFATC2	ENSG00000101096	98	DCG0000011	Yes

NIPA1	ENSG00000170113	70	DCG0000045	Yes
NIPA2	ENSG00000140157	105	DCG0000568	Yes
NOTCH1	ENSG00000148400	98	DCG0000240	Yes
NOTCH2	ENSG00000134250	78	DCG0000280	Yes
NPHP1	ENSG00000144061	111	DCG0000033	Yes
NPM1	ENSG00000181163	175	DCG0000618	Yes
NRAS	ENSG00000213281	116	DCG0000201	Yes
NRXN1	ENSG00000179915	90	DCG0000454	Yes
NSD1	ENSG00000165671	107	DCG0000137	Yes
PAK5	ENSG00000101349	100	DCG0000012	Yes
PARP8	ENSG00000151883	120	DCG0000492	Yes
PAX2	ENSG00000075891	99	DCG0000265	Yes
PAX6	ENSG00000007372	90	DCG0000362	Yes
PCDH9	ENSG00000184226	108	DCG0000252	Yes
PCM1	ENSG00000078674	112	DCG0000006	Yes
PDGFRA	ENSG00000134853	104	DCG0000176	Yes
PIK3CA	ENSG00000121879	89	DCG0000094	Yes
PIK3R1	ENSG00000145675	110	DCG0000125	Yes
PITRM1	ENSG00000107959	74	DCG0000016	Yes
PLAU	ENSG00000122861	71	DCG0000508	Yes

PLEKHF1	ENSG00000166289	150	DCG0000430	Yes
PLP1	ENSG00000123560	74	DCG0000277	Yes
PML	ENSG00000140464	108	DCG0000402	Yes
POMT1	ENSG00000130714	128	DCG0000101	Yes
POMT2	ENSG00000009830	68	DCG0000054	Yes
PRKN	ENSG00000185345	117	DCG0000196	Yes
PTCH1	ENSG00000185920	78	DCG0000149	Yes
PTK2	ENSG00000169398	87	DCG0000044	Yes
PTPN1	ENSG00000196396	123	DCG0000198	Yes
PTPRD	ENSG00000153707	84	DCG0000039	Yes
RAF1	ENSG00000132155	73	DCG0000024	Yes
RAI1	ENSG00000108557	69	DCG0000297	Yes
RARA	ENSG00000131759	69	DCG0000545	Yes
RB1	ENSG00000139687	109	DCG0000117	Yes
RBM11	ENSG00000185272	119	DCG0000456	Yes
RET	ENSG00000165731	90	DCG0000601	Yes
RNF170	ENSG00000120925	115	DCG0000093	Yes
RNF212	ENSG00000178222	75	DCG0000225	Yes
RPP30	ENSG00000148688	107	DCG0000181	Yes
RSF1	ENSG00000048649	98	DCG0000063	Yes

RUNX1	ENSG00000159216	82	DCG0000183	Yes
RUNX1T1	ENSG00000079102	111	DCG0000065	Yes
RUNX2	ENSG00000124813	76	DCG0000237	Yes
RUNX3	ENSG00000020633	71	DCG0000350	Yes
SAMSN1	ENSG00000155307	97	DCG0000516	Yes
SCN7A	ENSG00000136546	104	DCG0000109	Yes
SGCZ	ENSG00000185053	108	DCG0000248	Yes
SHH	ENSG00000164690	76	DCG0000041	Yes
SIK2	ENSG00000170145	85	DCG0000046	Yes
SKIL	ENSG00000136603	91	DCG0000400	Yes
SKP2	ENSG00000145604	90	DCG0000255	Yes
SLC30A9	ENSG00000014824	95	DCG0000366	Yes
SLC9A9	ENSG00000181804	67	DCG0000247	Yes
SLIT2	ENSG00000145147	111	DCG0000034	Yes
SMAD3	ENSG00000166949	71	DCG0000289	Yes
SMAD4	ENSG00000141646	113	DCG0000490	Yes
SNCA	ENSG00000145335	83	DCG0000124	Yes
SORCS1	ENSG00000108018	104	DCG0000017	Yes
SORL1	ENSG00000137642	92	DCG0000028	Yes
SOX2	ENSG00000181449	71	DCG0000598	Yes

SOX9	ENSG00000125398	138	DCG0000610	Yes
SPIN4	ENSG00000186767	68	DCG0000464	Yes
SRY	ENSG00000184895	113	DCG0000359	Yes
STAT3	ENSG00000168610	151	DCG0000592	Yes
STK11	ENSG00000118046	72	DCG0000599	Yes
STK3	ENSG00000104375	95	DCG0000591	Yes
STS	ENSG00000101846	128	DCG0000377	Yes
SYT10	ENSG00000110975	113	DCG0000384	Yes
TBX1	ENSG00000184058	136	DCG0000226	Yes
TERT	ENSG00000164362	113	DCG0000186	Yes
THNSL2	ENSG00000144115	100	DCG0000522	Yes
TJP1	ENSG00000104067	69	DCG0000585	Yes
TMEM11	ENSG00000178307	103	DCG0000519	Yes
TNC	ENSG00000041982	87	DCG0000003	Yes
TOP2A	ENSG00000131747	98	DCG0000102	Yes
TP53	ENSG00000141510	108	DCG0000178	Yes
TPX2	ENSG00000088325	119	DCG0000009	Yes
TRIO	ENSG00000038382	105	DCG0000060	Yes
TTC5	ENSG00000136319	94	DCG0000398	Yes
TYMS	ENSG00000176890	64	DCG0000448	Yes

URI1	ENSG00000105176	84	DCG0000579	Yes
USP9Y	ENSG00000114374	80	DCG0000388	Yes
VEGFA	ENSG00000112715	120	DCG0000018	Yes
VHL	ENSG00000134086	125	DCG0000617	Yes
VOPPI	ENSG00000154978	112	DCG0000420	Yes
WNT1	ENSG00000125084	72	DCG0000396	Yes
WNT2	ENSG00000105989	74	DCG0000079	Yes
WSB1	ENSG00000109046	112	DCG0000382	Yes
WT1	ENSG00000184937	71	DCG0000309	Yes
YES1	ENSG00000176105	116	DCG0000444	Yes
ZFH3	ENSG00000140836	75	DCG0000406	Yes
ZMYM2	ENSG00000121741	71	DCG0000390	Yes
ZNF843	ENSG00000176723	91	DCG0000446	Yes

Methylation Assays

Gene Symbol	Ensembl Gene ID	Amplicon Length	GeneGlobe ID	Wet-lab verified
MGMT	ENSG00000170430	130	DCG0000620	Yes
MLH1	ENSG00000076242	270	DCG0000619	Yes

Ordering Information

Product

Contents

Cat. no.

dPCR CNV Probe Reference Assay	Single tube containing ready-to-use, 20x-concentrated reference assay; sufficient for 300/500/1000 dPCR reactions of 12 µl each	250213*
dPCR CNV Probe Centromeric Reference Assay	Single tube containing ready-to-use, 20x-concentrated centromeric reference assay; sufficient for 300/500/1000 dPCR reactions of 12 µl each	250212*
dPCR CNV Probe Assay	Single tube containing ready-to-use, 20x-concentrated gene-specific assay; sufficient for 300/500/1000 dPCR reactions of 12 µl each	250210*
	10 QIAcuity Nanoplates 26k 24-well, 11 Nanoplate Seals	250001
QIAcuity Probe PCR Kit (1 mL, 5 mL, 25 mL)	1 mL, 5 mL, or 25 mL Master Mix for the QIAcuity dPCR instrument; water	250101 250102 250103
QIAcuity OneStep Advanced Probe Kit (1 mL, 5 mL)	1 mL or 5 mL OneStep Master Mix for the QIAcuity dPCR instrument, RT Mix, Internal Control RNA, Enhancer GC, water	250131 250132
QIAcuity High Multiplex Probe PCR Kit (1 mL, 5 mL)	1 mL or 5 mL 4x concentrated QIAcuity High Multiplex Probe PCR Master Mix, 2 x 1.9 mL RNase-free Water, QN Internal Control DNA	250133 250134
QIAcuity UCP Probe PCR Kit (1 mL, 5 mL)	1 mL or 5 mL ultra clean production Master Mix for the QIAcuity dPCR instrument; water	250121 250122

* For the respective Assay ID, see the tables above; full assay cat. no. will be available after dye configuration.

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