

QIAseq Targeted DNA Pro Panels

Human Comprehensive Hereditary Cancer Research

Cat. nos. 333661 PHS-3200Z-12 and 333665 PHS-3200Z-96

For ultrasensitive targeted next-generation sequencing (NGS) of DNA

The QIAseq Targeted DNA Pro Human Comprehensive Hereditary Cancer Panel permits the targeted next generation sequencing of the whole coding region of 317 oncogenes and tumor suppressor genes relevant to an inherited predisposition to developing cancer, covering 1,311,241 bases with 15,370 primers. The panel also targets actionable and interpretable cancer-related germline variants relevant for tumor classification of brain cancers, colorectal cancers, gastric cancers, hematological malignancies, hereditary breast & ovarian cancers (HBOC), kidney cancers, myeloid neoplasms, pancreatic cancers, prostate cancers, and skin cancers (including melanomas), and other cancers. Targeted actionable and interpretable genes and variants were collected from 1) clinical practice guidelines recommended by multiple organizations, including the American College of Medical Genetics (ACMG); 2) the NIH NCBI ClinVar and Online Mendelian Inheritance in Man (OMIM) resources that compile variants with known associations to cancers cited by peer-reviewed publications, 3) the St. Jude Children's Research Hospital's Pediatric Cancer Genome Project list of discovered driver mutations; 4) requests and suggestions from QIAGEN KOLs and SMEs; and 5) other peer-reviewed publications. As a result, this primer pool gives researchers a comprehensive insight into hereditary cancer genomics with the detection of SNP/indels in a focused panel of relevant genes using digital DNA sequencing.

For further details, consult the *QIAseq Targeted DNA Pro Panels Handbook*.

Shipping and storage

The QIAseq Targeted DNA Pro Kits (except QIAseq Beads and QIAseq Bead Binding Buffer) are shipped on dry ice and should be stored at -30°C to -15°C in a constant-temperature freezer upon arrival. The QIAseq Beads and QIAseq Bead Binding Buffer are shipped on cold packs and should be stored at $2-8^{\circ}\text{C}$ upon arrival. The QIAseq Targeted DNA Pro Index Kits are shipped on dry ice and should be stored at -30°C to -15°C upon arrival. When stored correctly, the QIAseq Targeted DNA Pro Kits are good until the expiration date printed on the kit label.

Note: Open the package and store the products appropriately immediately upon receipt.



Panel Contents

QIAseq Targeted DNA Pro Catalog Number	333661	333665
No. of samples	12	96
One pool of region-specific primers	90 μ L	700 μ L
FFPE repair reagent	15 μ L	80 μ L
FFPE repair enzyme	17 μ L	120 μ L
FX Buffer, 10x	23 μ L	170 μ L
5X WGS FX Mix	42 μ L	330 μ L
FG Solution	170 μ L	170 μ L
UPH Ligation Buffer, 2.5x	288 μ L	1152 μ L
DNA Ligase	75 μ L	330 μ L
Ligation Cleanup Reagent	30 μ L	240 μ L
TEPCR Buffer, 5x	3 x 60 μ L	3 x 500 μ L
TEPCR modifier	30 μ L	230 μ L
TEPCR Cleanup Reagent	80 μ L	600 μ L
UPCR Buffer, 5x	500 μ L	4 x 500 μ L
QN Taq Polymerase	2 x 60 μ L	2 x 450 μ L
Nuclease-free water	1.5 mL	10 mL
One bottle containing QIAseq Bead Binding Buffer	10.2 mL	10.2 mL
One bottle containing QIAseq Beads	10 mL	10 mL

Gene Table

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ABRAXA51	ACVR1	ADGRB3	AIP	ALK	ALPK2
APC	AR	ATM	ATR	ATRX	AURKA
AXIN2	B2M	BAP1	BARD1	BCL11B	BCOR
BLM	BMPRIA	BRAF	BRCA1	BRCA2	BRIP1
BUB1B	CACNA1D	CARD11	CASR	CBL	CCND1
CDC73	CDH1	CDK4	CDKN1B	CDKN1C	CDKN2A
CDKN2B	CDKN2B-A51	CEBPA	CEP57	CFTR	CHD2
CHD7	CHEK2	CHIC2	CIC	CLTCL1	CPA1
CR2	CREBBP	CTCF	CTNNA1	CTNNB1	CTRC
CYLD	DCLRE1C	DDB2	DDX3X	DDX41	DDX60
DEPDC5	DICER1	DIS3L2	DNAH14	DNAJC21	DNM2
DNMT3A	DYNC1H1	ECT2L	EED	EGFR	EHBP1
ELAC2	EP300	EPCAM	EPHB2	ERBB2	ERBB3
ERCC2	ERCC3	ERCC4	ERCC5	ERG	ESR1
ETV6	EXT1	EXT2	EZH2	FANCA	FANCB
FANCC	FANCD2	FANCE	FANCF	FANCG	FANCI
FANCL	FANCM	FAP	FBXW7	FCRL2	FGFR1
FGFR2	FGFR3	FGFR4	FH	FLCN	FLT1
FLT3	FOXO1	FZD6	G6PD	GABRG1	GALNT12
GATA1	GATA2	GATA3	GNB1	GPAM	GPC3
GREM1	H1-5	H2AC7	H2BC6	H2BC7	H3-3A
H3C4	H4C4	HAVCR2	HDAC9	HIPK2	HMMR
HNF1A	HNF1B	HNRNP41	HNRNP41	HOXB13	HRA5
IDH1	IDH2	IFIT3	IKZF1	IKZF2	IKZF3
IL7R	IRS2	IRX2	JAK1	JAK2	JAK3
KAT6A	KCNQ1	KDM4C	KDM6A	KIF1B	KIF7
KIT	KLHDC8B	KMT2B	KMT2D	KRAS	LEF1
LIG4	LMO2	LPP	LRRK1	LRRK2	LZTR1
MAP2K1	MAP2K2	MAP3K1	MAPK1	MAST4	MAX
MC1R	MDM2	MDM4	MEN1	MET	MITF
MLH1	MLH3	MLLT10	MN1	MPL	MRE11
MSH2	MSH3	MSH6	MSMB	MTOR	MUTYH
MYB	MYC	MYCN	NBN	NCAPD3	NF1
NF2	NLRP5	NOTCH1	NQO2	NRAS	NRP1
NSD1	NSD2	NTHL1	OLIG2	OTOF	OTX2
PAG1	PALB2	PALLD	PARP2	PAX3	PAX5
PAX6	PAX7	PCDHGB3	PDGFB	PDGFRA	PFKP
PGR	PHB	PHF6	PHOX2B	PIK3CA	PKHD1
PLA2G2A	PLAA	PMS1	PMS2	PMS2CL	POLD1
POLE	POLH	POT1	POU6F2	PRF1	PRKAG2
PRKARIA	PRLR	PRSS1	PRSS2	PTCH1	PTCH2
PTEN	PTPN11	RAB11FIP1	RABL3	RAD50	RAD51
RAD51C	RAD51D	RAF1	RARA	RB1	RECQL
RECQL4	RELN	RE5T	RET	RHBDF2	RINT1
RNASEL	RNF43	RPS20	RUNX1	SBD5	SDHA
SDHAF2	SDHB	SDHC	SDHD	SEMA4A	SETBP1
SETD2	SF3B1	SH2B3	SH2D1A	SH3GL1	SLX4
SMAD4	SMAD7	SMAD9	SMARCA4	SMARCB1	SMARCE1
SMO	SOS1	SPINK1	STK11	STYK1	SUFU
SUZ12	TAL1	TERC	TERT	TGFBR2	THPO
TLR2	TMEM127	TMPRSS2	TOX3	TP53	TPO
TRIM28	TSC1	TSC2	TSHR	TTN	TYR
VHL	WDFY3	WDFY4	WRN	WT1	XIAP
XPA	XPC	XRCC2	XRCC3	ZMYM3	

Functional Groupings

Central Nervous System Cancers:

Anaplastic Glial Tumors: CDKN2A, CDKN2B, PTEN, RB1, TP53.

Astrocytomas: APC, ATRX, BRAF, CDKN2A, CDKN2B, CDKN2B-AS1, CHEK2, FGFR1, HIPK2, HRAS, IDH1, MSH2, MYB, NF1, PALB2, PTPN11, RB1, SDHA, TP53, TSC1.

Atypical Teratoid Rhabdoid Tumors: SMARCA4, SMARCB1.

Craniopharyngiomas: BRAF, CTNNB1.

Ependymomas: CDKN2A, ERBB2, MEN1, NF2, TP53.

Ganglioneuromas: ALK, PHOX2B.

Glioblastomas: ALK, APC, BCOR, BRAF, BRCA2, CDK4, CDKN2A, CDKN2B, CREBBP, EGFR, EPCAM, ERBB2, IDH1, KIT, LZTR1, MLH1, MSH2, MSH6, MTOR, MYC, NRAS, PIK3CA, PMS2, PMS2CL, PTEN, RB1, TP53.

Gliomas: ACVR1, ADGRB3, ATRX, BRAF, BRCA2, BRIP1, CDKN2A, CHD2, CHEK2, CIC, EGFR, EP300, FGFR1, FLT1, H3-3A, IDH1, IRS2, MDM4, MYB, MYCN, NF1, NSD2, PDGFRA, PIK3CA, POT1, PTEN, STYK1, TP53.

Hereditary Paraganglioma-Pheochromocytoma Syndrome: MAX, SDHAF2, SDHB, SDHC, SDHD, TMEM127.

Intercranial Ependymomas: CDKN2A, CDKN2B.

Lynch Syndrome: EPCAM, MLH1, MSH2, MSH6, PMS2, PMS2CL.

Medulloblastomas: ALPK2, APC, BRCA2, CACNA1D, CDH1, CDK4, CHD7, CLTCL1, CREBBP, CTCF, CTNNB1, DDX3X, DDX60, DEPDC5, DICER1, DNAH14, DYNC1H1, ERBB2, FAP, FCRL2, FGFR1, GABRG1, GPAM, HDAC9, IDH1, IFIT3, IRX2, KAT6A, KDM4C, KDM6A, KIF7, KMT2B, KMT2D, LRRK1, LRRK2, MAST4, MSH2, MYC, MYCN, NCAPD3, NLRP5, NRAS, NRPI, OTOF, OTX2, PARP2, PCDHGB3, PFKP, PIK3CA, PRKAG2, PRLR, PTCH1, PTCH2, PTEN, RAB11FIP1, RB1, SF3B1, SMARCA4, SMARCB1, SUFU, TP53, TPO, TTN, WDFY3, WDFY4, WRN, ZMYM3.

Meningiomas: CDKN2A, CDKN2B, G6PD, MN1, NF2, PDGFB, PTEN, SMARCE1, SUFU.

Neuroblastomas: ALK, BRCA1, BRCA2, DICER1, EZH2, HRAS, KIF1B, NRAS, PHOX2B, PTCH1, PTPN11, SMARCA4, TP53.

Neurofibromas: EPCAM, MLH1, MSH2, MSH6, NF1, PMS2, PMS2CL.

Neurofibromatosis: NF1, NF2.

Oligodendrogliomas: CDKN2A, CDKN2B, IDH1, MSH2, RB1.

Tuberous Sclerosis Complex: TSC1, TSC2.

Other Central Nervous System Cancer Genes: AIP, CDKN1B, EPHB2, PRKAR1A, VHL.

Colorectal Cancers:

Adenocarcinomas: APC, ATM, AXIN2, BMPR1A, BRAF, BRCA1, BRCA2, CHEK2, EP300, FLCN, MLH1, MLH3, MSH2, MSH3, MSH6, MUTYH, NRAS, PALB2, PMS1, PMS2, PMS2CL, POLD1, POLE, PTEN, RNF43, SMAD4, STK11, TGFB2, TP53.

Colorectal Cancer Susceptibility: CCND1, GALNT12, POLD1, POLE, SMAD7.

Familial Adenomatous Polyposis: APC, MSH3, MUTYH, NTHL1, POLD1, POLE.

Hereditary Mixed Polyposis Syndrome: BMPR1A, GREM1.

Hereditary Nonpolyposis: BRAF, EPCAM, MLH1, MLH3, MSH2, MSH6, PMS1, PMS2, PMS2CL, TGFB2.

Hereditary Polyposis Syndrome: BMPR1A, GREM1.

Juvenile Polyposis Syndrome: BMPR1A, SMAD4.

Lynch Syndrome: BRAF, EPCAM, MLH1, MLH3, MSH2, MSH6, PMS1, PMS2, PMS2CL, TGFBR2.

Metastatic Colorectal Cancers: ATM, BRAF, NRAS.

Muir-Torre Syndrome: MLH1, MSH2.

Other Colorectal Cancer Genes: AURKA, BLM, CDH1, PKHD1, PLA2G2A, RB1, RPS20, SEMA4A, TLR2, XRCC2.

Gastric Cancers:

Gastrointestinal Stromal Tumors (GIST): KIT, NF1, PDGFRA, SDHB, SDHC, SDHD, TMEM127.

Lynch Syndrome: EPCAM, MLH1, MSH2, MSH6, PMS2, PMS2CL.

Multiple Endocrine Neoplasia: CDKN1B, MEN1.

Other Gastric Cancer Genes: APC, ATM, BMPR1A, CDH1, CHEK2, CTNNA1, KRAS, SMAD4, STK11, TP53.

Hematological Malignancies:

Eosinophilia: CR2, JAK1.

Lymphoproliferative Disorders: PLAA, SH2D1A, XIAP.

Mastocytosis: DNMT3A, IDH2, KIT, NRAS, RUNX1.

Multiple Myeloma: ATM, CCND1, IDH1, IDH2, KIT, LIG4, NRAS, TP53.

Myelodysplastic Syndromes (MDS): CEBPA, DNMT3A, GATA2, GNB1, IDH1, IDH2, KIT, MPL, MSH6, NF1, NRAS, RUNX1, SMAD9, TERC, TERT, TP53.

Myelofibrosis: DNMT3A, IDH1, IDH2, MPL, NF1, NRAS, TP53.

Myeloproliferative Neoplasms (NPM): DNMT3A, IDH1, IDH2, MPL, RUNX1, SH2B3, TP53.

Polycythemia Vera: DNMT3A, IDH1, NRAS, TP53.

Thrombocythemia: IDH2, MPL, SH2B3, THPO, TP53.

Other Hematological Malignancies Genes: BLM, EPCAM, HRAS, MLH1, MSH2, NBN, PMS2, PMS2CL.

Hereditary Breast & Ovarian Cancers (HBOC):

Familial Breast-Ovarian Cancer Susceptibility: BRCA1, BRCA2, FGFR2, MAP3K1, RAD51C, RAD51D, TOX3.

Breast Cancer Carcinomas: ATM, BARD1, BRCA1, BRCA2, BRIP1, CHEK2, ERBB2, ESR1, MLH1, MSH2, MSH6, PALB2, PIK3CA, PMS2, PMS2CL, RAD51C, RAD51D.

Breast Cancer Ductal Carcinomas: CDH1, FGFR2, MRE11, NBN, STK11, TP53.

Breast Cancer Susceptibility: BARD1, BRCA2, PALB2, RECQL, XRCC3.

Metastatic Breast Cancers: BRCA1, BRCA2, ERBB2, ESR1, NF1, PALB2, PIK3CA, PTEN.

Other Breast Cancer Genes: APC, AXIN2, SDHB, SMARCA4, TSHR.

Ovarian Cancer Epithelial Carcinomas: ABRAXAS1, ATM, BARD1, BRCA1, BRCA2, BRIP1, CHEK2, ERBB2, MRE11, NBN, NF1, PALB2, PIK3CA, PTEN, RAD51C, RAD51D, TP53.

Ovarian Cancer Mixed Adenosquamous Carcinomas: BLM, CDH1, DICER1, FANCC, FANCM, FGFR2, RAD50, RAD51, SMARCA4, STK11.

Other Ovarian Cancer Genes: MLH1, RECQL, RINT1, XRCC2.

Uterine Serous Carcinomas: BLM, CDH1, DICER1, FANCC, FANCM, FGFR2, RAD50, RAD51, SMARCA4.

Lynch Syndrome: EPCAM, MLH1, MSH2, MSH6, PMS2, PMS2CL.

Other Hereditary Breast & Ovarian Cancer Genes: HMMR, MUTYH, NQO2, PGR, PHB, POLD1, PRKAR1A.

Kidney Cancers:

Hamartomas: CDC73, DIS3L2.

Lynch Syndrome: EPCAM, MLH1, MSH6, PMS2, PMS2CL.

Nephroblastomas: CDKN1C, DIS3L2, TRIM28.

Papillary Renal Cell Carcinomas: FH, MET.

Renal Cell Carcinomas: BAP1, BRAF, FGFR3, FH, FLCN, HNF1A, HNF1B, MET, MITF, MSH2, MTOR, NRAS, PIK3CA, PTEN, SDHA, SDHB, SDHC, SDHD, TMEM127, TP53, VHL.

Rhabdoid Tumors: SMARCA4, SMARCB1.

Tuberous Sclerosis Complex: TSC1, TSC2.

Wilms Tumors: BRAF, BRCA2, CDC73, CDKN1C, DICER1, DIS3L2, FZD6, GPC3, PAX6, REST, VHL, WT1.

Other Kidney Cancer Genes: BUB1B.

Myeloid Neoplasms:

Acute Lymphoblastic Leukemia (ALL): BRAF, CDKN2A, CDKN2B, CREBBP, EP300, ETV6, EZH2, FBXW7, FLT3, GATA3, H2AC7, H2BC6, H2BC7, H3C4, H4C4, IKZF1, IKZF2, IKZF3, IL7R, JAK1, JAK2, JAK3, KRAS, MAPK1, NF1, NOTCH1, NRAS, PAG1, PAX5, PTEN, PTPN11, RB1, RUNX1, SH2B3, TP53.

Acute Megakaryoblastic Leukemia (AMKL): ERG, GATA1, JAK2, MET, MPL, OLIG2, RUNX1, SMO, TMPRSS2.

Acute Myeloid Leukemia (AML): BRCA2, CEBPA, CHIC2, DDX41, DNMT3A, ETV6, FLT3, GATA1, GATA2, IDH1, IDH2, IKZF1, IKZF2, IKZF3, JAK2, KIT, KRAS, LPP, MLLT10, NRAS, PTPN11, RB1, RUNX1, SH3GL1, TERT, TP53, WT1.

Acute Promyelocytic Leukemia (APML; APL): CEBPA, RUNX1.

Atypical Chronic Myeloid Leukemia (aCML): CBL, CEBPA, EZH2, FLT3, JAK2, KRAS, NRAS, RUNX1, SETBP1.

B Cell Acute Lymphoblastic Leukemia (B-ALL): IKZF1, JAK1, JAK2, PAX5.

Chronic Lymphocytic Leukemia (CLL): BRAF, GNB1, NOTCH1, NRAS, PTPN11, TP53.

Chronic Myeloid Leukemia (CML): BRAF, CBL, CREBBP, DNMT3A, EZH2, IDH1, IDH2, IKZF1, JAK2, KRAS, NRAS, RUNX1, TP53, WT1.

Chronic Myelomonocytic Leukemia (CMML): CBL, CEBPA, DNMT3A, EZH2, FLT3, IDH1, IDH2, JAK2, KIT, KRAS, MPL, NF1, NRAS, PHF6, PTPN11, RUNX1, SETBP1, TP53.

Early T-Cell Precursor Acute Lymphoblastic Leukemia: BCL11B, BRAF, CDKN2A, CDKN2B, CTCF, DCLRE1C, DNMT2, ECT2L, EED, EP300, ETV6, EZH2, FBXW7, FLT3, GATA2, GATA3, H1-5, HNRNPA1, HNRNPR, IKZF1, IL7R, JAK1, JAK3, KRAS, LEF1, LMO2, MYB, NF1, NOTCH1, NRAS, PHF6, PTEN, PTPN11, RB1, RELN, RUNX1, SETD2, SH2B3, SUZ12, TAL1, WT1.

Hairy Cell Leukemia: BRAF, TP53.

Juvenile Myelomonocytic Leukemia: CBL, KRAS, NF1, NRAS, PTPN11.

T Cell Acute Lymphoblastic Leukemia (T-ALL): FBXW7, NOTCH1.

Other Leukemia Genes: APC, ATM, CDH1, DICER1, DNAJC21, ERBB3, ERCC2, ERCC4, KCNQ1, MSH2, MSH6, MUTYH, NBN, NSD1, RECQL4, RET, SOS1, STK11, TSC2.

Acute Lymphoblastic Lymphomas: CDKN2A, CDKN2B, NOTCH1, TP53.

B Cell Lymphomas: BRAF, CHEK2, EZH2, TP53.

Follicular Lymphomas: CREBBP, EP300, EZH2.

Non-Hodgkin Lymphomas: BRAF, NRAS, PIK3CA, TP53.

T Cell Lymphomas: ATM, DNMT3A, HAVCR2, IDH1, IDH2, JAK1, JAK3, SETD2.

Other Lymphoma Genes: B2M, BRCA2, CEBPA, KIT, KLHDC8B, MSH2, MSH6, MUTYH, PRF1, PTPN11, RB1, RECQL4, RET, STK11, TSC2.

Myelodysplastic Syndromes (MDS): CBL, CEBPA, DDX41, DNMT3A, ETV6, EZH2, FLT3, GATA2, GNB1, IDH1, IDH2, JAK2, JAK3, KIT, KRAS, MPL, NF1, NRAS, PHF6, PTPN11, RUNX1, SETBP1, TERC, TERT, TP53, WT1.

Myeloproliferative Neoplasms (MPN): CBL, DNMT3A, EZH2, IDH1, IDH2, JAK2, MPL, RUNX1, SH2B3, TP53.

Essential Thrombocythemia: CBL, IDH2, JAK2, MPL, TP53.

Fanconi Anemia: FANCA, FANCB, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCM, SLX4.

Mastocytosis: CBL, EZH2, IDH2, JAK2, KIT, KRAS, NRAS, RUNX1.

Multiple Myeloma: ATM, BRAF, BRCA2, CHEK2, FANCL, IDH1, IDH2, KIT, KRAS, MET, NRAS, RET, TP53./

Polycythemia Vera: DNMT3A, EZH2, IDH1, JAK2, NRAS, TP53.

Primary Myelofibrosis: CBL, DNMT3A, EZH2, IDH1, IDH2, JAK2, MPL, NF1, NRAS, SETBP1, TP53.

Systemic Mastocytosis: CBL, DNMT3A, ETV6, EZH2, IDH2, JAK2, KIT, KRAS, NRAS, RUNX1, SETBP1.

Pancreatic Cancers:

Adenocarcinomas: ATM, BRCA1, BRCA2, CDKN2A, CFTR, EPCAM, FANCC, MLH1, MSH2, MSH6, PALB2, PALD, PMS2, PMS2CL, PRSS1, SMAD4, SPINK1, STK11, TP53.

Adenomas: TSC1, TSC2.

Familial Pancreatic Cancers: ATM, BRCA2, CDKN2A, PALB2.

Hereditary Pancreatitis: CFTR, CTSC, PRSS1, PRSS2, SPINK1.

Lynch Syndrome: EPCAM, MLH1, MSH2, MSH6, PMS2, PMS2CL.

Multiple Endocrine Neoplasia: CDKN1B, MEN1.

Pancreatic Cancer Susceptibility: BRCA1, BRCA2, PALB2, PALD, RAB13.

Other Pancreatic Cancer Genes: APC, BMPR1A, CASR, CDK4, CPA1, NF1, VHL.

Pediatric Cancers:

Craniopharyngiomas: APC, SMARCA4, SUFU, TSC1.

Embryonal Rhabdomyosarcomas: CARD11, CTNNB1, FGFR4, HRAS, KRAS, MDM2, MDM4, NF1, NRAS, PIK3CA, RARA, TP53.

Ependymomas: MEN1, NF2.

Ewing's Sarcoma: NF1, RET.

Germ Cell Tumors: BRAF, CBL, FANCM, PTEN.

Hepatoblastomas: CDK4, MSH6, TP53.

Hepatocellular Carcinomas: APC, CREBBP, CTNNB1, IDH1, KRAS, MET, NRAS, PIK3CA, TERT, TP53.

Lynch Syndrome: EPCAM, MLH1, PMS2, PMS2CL.

Nephroblastomas: BRCA2, CDKN1C, DIS3L2, PAX6, POU6F2, REST, SMARCB1, WT1.

Neuroblastomas: ALK, PHOX2B, PTCH1.

Osteosarcomas: ATRX, CDKN2A, CHEK2, RB1, RECQL4, TP53, TSC2.

Retinoblastomas: APC, CEBPA, MAX, RB1, STK11, TSC2.

Rhabdomyosarcomas: BRCA1, DICER1, FOXO1, MSH2, PAX3, PAX7.

Other Pediatric Cancer Genes: CDC73, PRKAR1A, VHL.

Prostate Cancers:

Adenocarcinomas: AR, BRIP1, CHEK2, NBN, PTEN, RAD51C, RAD51D, TP53.

Advanced Prostate Cancers: ATM, BRCA1, BRCA2, PALB2, PTEN.

Lynch Syndrome: EPCAM, MLH1, MSH2, MSH6, PMS2, PMS2CL.

Other Prostate Cancer Genes: CDH1, EHBPI, ELAC2, HOXB13, MSMB, RNASEL.

Skin Cancers:

Cutaneous Melanomas: BAP1, CDK4, CDKN2A, MC1R, MITF, POT1, XRCC3.

Malignant Melanoma Susceptibility: CDK4, CDKN2A, MC1R, MITF, POT1, TERT, XRCC3.

Malignant Melanomas: CDK4, CDKN2A, MC1R, MITF, POT1, XRCC3.

Melanomas: BRAF, BRCA1, BRCA2, CDK4, CDKN2A, CDKN2B-AS1, CREBBP, IDH1, KIT, KRAS, MAP2K1, MAP2K2, MC1R, MITF, NRAS, PIK3CA, POT1, PTEN, RAF1, RB1, TERT, TP53, TYR.

Uveal Melanomas: BAP1, BRCA2, CDKN2A, CDKN2B.

Xeroderma Pigmentosum: DDB2, ERCC2, ERCC3, ERCC4, ERCC5, POLH, XPA, XPC.

Other Skin Cancer Genes: ATR, CYLD, FH, FLCN, PRKAR1A, PTCH2.

Other Cancer-Related Genes: CEP57, EXT1, EXT2, RHBDF2, SBD5.

Ordering Information

Product	Contents	Cat. no.
QIAseq Targeted DNA Pro (12)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 12 samples; less than 200 genes	333651
QIAseq Targeted DNA Pro (96)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 96 samples; less than 200 genes	333655
QIAseq Targeted DNA Pro HC (12)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 12 samples; more than 200 genes	333661
QIAseq Targeted DNA Pro HC (96)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 96 samples; more than 200 genes	333665
QIAseq Targeted DNA Pro Custom (96)	All reagents (except indexes) for targeted DNA sequencing; custom panel for 96 samples	333675
QIAseq Targeted DNA Pro Booster (96)	Pool of primers used in combination with either catalogued or custom panels	333685

QIAseq Targeted DNA Pro Unique Dual Indices

QIAseq Targeted DNA Pro UDI Set A (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set A (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	333455
QIAseq Targeted DNA Pro UDI Set B (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set B (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	333465
QIAseq Targeted DNA Pro UDI Set C (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set C (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	333475

Product	Contents	Cat. no.
QIAseq Targeted DNA Pro UDI Set D (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set D (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	333485
QIAseq Targeted DNA Pro UDI Set E (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set E (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	334015
QIAseq Targeted DNA Pro UDI Set F (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set F (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	334025
QIAseq Targeted DNA Pro UDI Set G (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set G (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	334035
QIAseq Targeted DNA Pro UDI Set H (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set H (of A, B, C, D, E, F, G, and H) required for multiplexing 768 samples in one run	334045
QIAseq Targeted DNA Pro UDI (12)	Box containing unique molecularly-indexed adapters and primers, enough for a total of 12 samples, for indexing up to 12 samples for targeted panel sequencing on Illumina platforms	333441
QIAseq Targeted DNA Pro Indices for Ion Torrent platforms		
QIAseq Targeted DNA Pro Index L (12)	Box containing molecularly-indexed adapters and primers, enough for a total of 12 samples – for indexing up to 12 samples for targeted panel sequencing on Ion Torrent platforms	333491

Product	Contents	Cat. no.
QIAseq Targeted DNA Pro Index L (24)	Box containing molecularly-indexed adapters and primers, enough for a total of 24 samples – for indexing up to 24 samples for targeted panel sequencing on Ion Torrent platforms	333492
Related products		
QIAseq Library Quant Assay Kit	Reagents for quantification of libraries prepared for Illumina or Ion Torrent platforms; assay format	333314
QIAseq Universal Normalizer Kit (96)	For 96 reactions: Reagents for the normalization of libraries using indexed library amplification primers.	180615
QIAseq Universal Normalizer Kit (24)	For 24 reactions: Reagents for the normalization of libraries using indexed library amplification primers.	180613
QIAamp DNA Mini Kit (50)	For 50 DNA preps: 50 QIAamp Mini Spin Columns, QIAGEN Proteinase K, Collection Tubes (2 mL), reagents and buffers	51304
QIAamp Circulating Nucleic Acid Kit (50)	For 50 DNA preps: QIAamp Mini Columns, Tube Extenders (20 mL), QIAGEN Proteinase K, Carrier RNA, Buffers, VacConnectors, and Collection Tubes (1.5 mL and 2 mL)	55114
QIAamp DNA FFPE Advanced UNG Kit (50)	For 50 preps: Uracil-N-glycosylase, QIAamp UCP MinElute columns, collection tubes, Deparaffinization Solution, Proteinase K, RNase A, RNase-free water and buffers	56704

QIAseq Targeted DNA Pro Panels are intended for molecular biology applications. These products are not intended for the diagnosis, prevention or treatment of a disease.

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