

QIAseq Targeted DNA Panels

Human Colorectal Cancer

Cat. Nos. 333502 DHS-002Z-I2 and 333505 DHS-002Z-96

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

The QIAseq Targeted DNA Human Colorectal Cancer Panel permits the sequencing of the whole coding region of 71 genes frequently mutated in colorectal cancer samples, covering 215,328 bases with 2,929 primers. Such frequently detected mutations are likely to be relevant or even important to colorectal cancer biology and may be used in translational research to classify samples with known phenotypes. Using the Catalogue of Somatic Mutations in Cancer (COSMIC), frequently mutated genes were collected for adenocarcinomas, adenomas, carcinomas, squamous cell carcinomas and other carcinomas of the colon and rectum. Using digital DNA sequencing, SNP/indels in a focused panel of genes relevant to colorectal cancer can be detected with this primer pool.

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

Shipping and storage

QIAseq Targeted DNA Panels (except Ligation Solution and QIAseq Beads) are shipped on dry ice and should be stored at -30 to -15°C in a constant-temperature freezer upon arrival. The QIAseq Beads and Ligation Solution are shipped on cold packs and should be stored at $2-8^{\circ}\text{C}$ except that the Ligation Solution should be removed immediately upon receipt and stored at -30 to -15°C in a constant-temperature freezer. The QIAseq Index kits are shipped on dry ice and should be stored at -30°C to -15°C upon arrival. When stored correctly, the QIAseq Index 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 Panel Catalog Number	333502	333505
Number of samples	12	96
One pool of region-specific primers	75 μ l	600 μ l
Fragmentation Buffer, 10x	40 μ l	300 μ l
Fragmentation Enzyme Mix	75 μ l	600 μ l
FERA Solution	15 μ l	110 μ l
FG Solution	170 μ l	170 μ l
Ligation Buffer, 5x	160 μ l	1250 μ l
DNA Ligase	75 μ l	600 μ l
Ligation Solution	125 μ l	970 μ l
Nuclease-free Water	1.5 ml	10 ml
TEPCR Buffer, 5x	60 μ l	500 μ l
UPCR Buffer, 5x	60 μ l	500 μ l
HotStarTaq® DNA Polymerase	30 μ l	240 μ l
One bottle containing QIAseq Beads	10 ml	55 ml

Gene Table

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ACVR1B	AKT1	APC	ATM
ATP6V0D2	AXIN2	BAX	BLM
BMPRI1A	BRAF	BRCA1	BRCA2
BUB1B	CASP8	CDC27	CDH1
CDK4	CDKN2A	CHEK2	CTNNA1
CTNNB1	DCC	DMD	EGFR
ENG	EP300	EPCAM	ERBB2
FBXW7	FGFR3	FLCN	FZD3
GALNT12	GPC6	GREM1	KIT
KRAS	MAP2K4	MAP7	MET
MIER3	MLH1	MLH3	MSH2
MSH3	MSH6	MUTYH	MYO1B
NRAS	PALB2	PIK3CA	PIK3R1
PMS1	PMS2	POLD1	POLE
PTEN	PTPN12	RET	RPS20
SCG5	SLC9A9	SMAD2	SMAD4
SRC	STK11	TCERG1	TCF7L2
TGFB2	TP53	WBSR17	

Functional Groupings

Adenomas:

Tubular Adenomas: BRAF, FBXW7, KRAS.

Tubulovillous Adenomas: BRAF, CTNNB1, KRAS, NRAS, PIK3CA.

Villous Adenomas: BRAF, KRAS.

Other Adenoma-Related Genes: APC, DMD, SMAD4, STK11, TCF7L2.

Carcinoid-Endocrine Tumors: APC, CTNNB1, TP53.

Carcinomas:

Adenocarcinomas: ACVR1B, AKT1, APC, ATM, ATP6V0D2, AXIN2, BAX, BLM, BMPR1A, BRAF, BRCA1, BRCA2, BUB1B, CASP8, CDC27, CDH1, CDK4, CDKN2A, CHEK2, CTNNA1, CTNNB1, DCC, DMD, EGFR, ENG, EP300, EPCAM, ERBB2, FBXW7, FGFR3, FLCN, FZD3, GALNT12, GPC6, GREM1, KIT, KRAS, MAP2K4, MAP7, MET, MIER3, MLH1, MLH3, MSH2, MSH3, MSH6, MUTYH, MYO1B, NRAS, PALB2, PIK3CA, PIK3R1, PMS1, PMS2, POLD1, POLE, PTEN, PTPN12, RET, RPS20, SLC9A9, SMAD2, SMAD4, SRC, STK11, TCERG1, TCF7L2, TGFBR2, TP53, WBSR17.

Neuroendocrine Carcinomas: BRAF, KRAS.

Serrated Carcinomas: BRAF, PIK3CA.

Squamous Cell Carcinomas (SCC): KRAS, TP53.

Other Carcinomas: BRCA2, CDKN2A.

Aberrant Crypt Foci:

Hyperplastic Aberrant Crypt Foci: BRAF, KRAS.

Other Aberrant Crypt Foci: APC.

Serrated Polyps:

Admixed Hyperplastic Polyps-Adenomas: BRAF, KRAS.

Hyperplastic Polyps: BRAF, CTNNB1, KRAS.

Serrated Adenomas: APC, BRAF, KRAS, WBSR17.

Serrated Fibroblastic Polyps-Intramucosal Perineuriomas: BRAF.

Other Tumors:

Borderline: KRAS.

Hamartoma: CTNNB1.

Juvenile Polyps: APC.

Neoplasms: APC, KRAS.

Peutz-Jeghers Polyps: APC.

Other Colorectal Cancer Genes: CTNNA1, MLH3, PALB2, PMS2, SCG5, SRC.

Ordering Information

Product	Contents	Cat. no.
QIAseq Targeted DNA Panel (12)	ALL reagents (except indexes) for targeted DNA sequencing; fixed panel for 12 samples; less than 200 genes	333502
QIAseq Targeted DNA Panel (96)	ALL reagents (except indexes) for targeted DNA sequencing; fixed panel for 96 samples; less than 200 genes	333505
QIAseq Targeted DNA HC Panel (12)	ALL reagents (except indexes) for targeted DNA sequencing; fixed panel for 12 samples; more than 200 genes	333512
QIAseq Targeted DNA HC Panel (96)	ALL reagents (except indexes) for targeted DNA sequencing; fixed panel for 96 samples; more than 200 genes	333515
QIAseq Targeted DNA Custom Panel (96)	ALL reagents (except indexes) for targeted DNA sequencing; Custom panel for 96 samples	333525
QIAseq Targeted DNA Extended Panel (96)	ALL reagents (except indexes) for targeted DNA sequencing; Extended panel for 96 samples	333545
QIAseq Targeted DNA Booster Panel (96)	Pool of primers used in combination with either cataloged or custom panels	333535
QIAseq Unique Dual Indices		
QIAseq 96-Unique Dual Index Set A (384)	Box containing unique molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set A (of A and B) required for multiplexing 192 samples in one run	333725
QIAseq 96-Unique Dual Index Set B (384)	Box containing unique molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set A (of A and B) required for multiplexing 192 samples in one run	333735
QIAseq 8-Unique Dual Index Set A (48)	Box containing unique molecularly-indexed adapters and primers, enough for a total of 48 samples, for indexing up to 8 samples for targeted panel sequencing on Illumina platforms; Set A (of A and B) required for multiplexing 16 samples in one run	333715

Product	Contents	Cat. no.
QIAseq 8-Unique Dual Index Set B (48)	Box containing unique molecularly-indexed adapters and primers, enough for a total of 48 samples, for indexing up to 8 samples for targeted panel sequencing on Illumina platforms; Set A (of A and B) required for multiplexing 16 samples in one run	333716
QIAseq Combinatorial Dual Indices		
QIAseq 12-Index I (48)	Box containing molecularly indexed adapters and primers, enough for a total of 48 samples, for indexing up to 12 samples for targeted panel sequencing on Illumina platforms	333714
QIAseq 96-Index I Set A (384)	Box containing molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; one of 4 sets required for multiplexing 384 samples	333727
QIAseq 96-Index I Set B (384)	Box containing molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; 2 of 4 sets required for multiplexing 384 samples	333737
QIAseq 96-Index I Set C (384)	Box containing molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; 3 of 4 sets required for multiplexing 384 samples	333747
QIAseq 96-Index I Set D (384)	Box containing molecularly indexed adapters and primers, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; 4 of 4 sets required for multiplexing 384 samples	333757
QIAseq Targeted DNA Indices for Ion Torrent platforms		
QIAseq 12-Index L (48)	Box containing molecularly-indexed adapters and primers, enough for a total of 48 samples – for indexing up to 12 samples for targeted panel sequencing on Ion Torrent platforms	333764
QIAseq 96-Index L (384)	Box containing molecularly-indexed adapters and primers in arrays, enough for a total of 384 samples – for indexing up to 96 samples for targeted panel sequencing on Ion Torrent platforms	333777

Product	Contents	Cat. no.
Related products		
QIAseq Library Quant Array Kit	Reagents for quantification of libraries prepared for Illumina or Ion Torrent platforms; array format	333304
QIAseq Library Quant Assay Kit	Reagents for quantification of libraries prepared for Illumina or Ion Torrent platforms; assay format	333314
QIAseq DNA QuantiMIZE Array Kit	qPCR arrays for optimizing amount of input DNA and PCR cycling conditions for targeted enrichment of FFPE DNA	333404
QIAseq DNA QuantiMIZE Assay Kit	qPCR assays for optimizing amount of input DNA and PCR cycling conditions for targeted enrichment of FFPE DNA	333414
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 Tissue Kit	For 50 DNA preps: 50 QIAamp MinElute Columns, Proteinase K, Buffers, Collection Tubes (2 ml)	56404
QIAamp DNA FFPE Advanced Kit	For 50 preps: QIAamp UCP MinElute Columns, collection tubes, Deparaffinization Solution, Proteinase K, RNase A, RNase-free water and buffers	56604
QIAamp DNA FFPE UNG Kit	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 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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