

# QIAseq Targeted Methyl Panels

## Human Colorectal Cancer

Cat. nos. 335501 MHS-002Z-8 and 335511 MHS-002Z-96

**For targeted next-generation sequencing of methylated DNA**

The QIAseq Targeted Methyl Human Colorectal Cancer Panel permits the bisulphite sequencing of the promoters of 63 genes frequently hypermethylated in colorectal cancer samples relative to normal tissue, covering approximately 149.6 kilobases with 749 primers. Such frequently differentially methylated genes 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. Gene targets were collected from peer-reviewed publications and then qualified for differential methylation in cancer samples using MethHC, a searchable front end for querying processed data from The Cancer Genome Atlas (TCGA). The panel includes primarily detection biomarkers, many of which have been reported to be found in blood, stool, and tissue DNA samples. The target set matches and exceeds the coverage of other commercial detection tests. Using digital bisulphite DNA sequencing, the methylation status a focused panel of gene promoters relevant to colorectal cancer can be detected with this primer pool.

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

### Shipping and storage

The QIAseq Methyl DNA Library Kits and QIAseq Methyl DNA 96-Index A, B, C, or D sets, with exception of the QIAseq Beads and Ligase Buffer, are shipped on dry ice. QIAseq Beads and Ligase Buffer are shipped on cooling packs. The kits, including all reagents and buffers, should be stored immediately upon receipt at  $-30^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  in a constant-temperature freezer. QIAseq Beads should be stored at  $4-8^{\circ}\text{C}$  upon delivery and not frozen. Ligase buffer should be stored at  $-30^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  upon delivery. If stored under these conditions, the kits are stable until the date indicated on the kit label.

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



## Panel Contents

QIAseq Targeted Methyl Panels Catalog no.	335501	335511
No. of preps	8	96
Targeted Methyl Panel Mix	90 $\mu$ l	1000 $\mu$ l
TM-repair Buffer 10x	400 $\mu$ l	400 $\mu$ l
T4 Polynucleotide Kinase	12 $\mu$ l	125 $\mu$ l
Ligase Buffer 2x	1.6 ml	3 x 1.6 ml
DNA Ligase	75 $\mu$ l	600 $\mu$ l
GeneRead® DNAseq 5x PCR Buffer	230 $\mu$ l	1.8 ml
UPCR Buffer 5x	60 $\mu$ l	500 $\mu$ l
dNTP Mix (10 mM each)	55 $\mu$ l	120 $\mu$ l
HotStarTaq® DNA Polymerase 6 U/ $\mu$ l	60 $\mu$ l	480 $\mu$ l
Nuclease-free water	4 x 1.5 ml	50 ml
TM Stop Solution	250 $\mu$ l	250 $\mu$ l
QIAseq Beads	10 ml	2 x 38.4 ml

## Gene Table

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ALX4	APC	ARMCX1	BCAT1
BMP3	CACNA1G	CDKN2A	CDO1
CMTM3	CNRIP1	COL4A2	DCC
DKK2	DLX5	ESX1	EYA2
EYA4	FBN1	FGF5	FOXF1
FOXI2	HLTF	IGF2	IGFBP3
IKZF1	INA	IRAK3	IRF4
MAL	MDF1	MGMT	MLH1
NDRG4	NEUROG1	NGFR	NPTX2
NPY	PDGFRA	RASSF1	RASSF2
RUNX3	SDC2	SEPTIN9	SFRP2
SHOX2	SLC16A7	SLC6A15	SNCA
SOC51	SOX1	SOX21	SPART
SSTR2	ST8SIA1	TAMALIN	TFPI2
THBS1	TMEFF2	TP73	UNC5C
VIM	WIF1	ZSCAN18	

## Functional Groupings

**Hypermethylated in Colorectal Cancer:** ALX4, APC, ARMCX1, BCAT1, BMP3, CACNA1G, CDKN2A, CDO1, CMTM3, CNRIP1, COL4A2, DCC, DKK2, DLX5, ESX1, EYA2, EYA4, FBN1, FGF5, FOXF1, FOXI2, HLTF, IGFBP3, IKZF1, INA, IRAK3, IRF4, MAL, MDF1, MGMT, MLH1, NDRG4, NEUROG1, NGFR, NPTX2, NPY, PDGFRA, RASSF1, RASSF2, RUNX3, SDC2, SEPTIN9, SFRP2, SHOX2, SLC6A15, SNCA, SOC51, SOX1, SOX21, SPART, SSTR2, ST8SIA1, TAMALIN, TFPI2, THBS1, TMEFF2, TP73, UNC5C, VIM, WIF1, ZSCAN18.

**Hypomethylated in Colorectal Cancer:** SLC16A7.

**CpG Island Methylator Phenotype (CIMP) Markers:** CACNA1G, CDKN2A, IGF2, MLH1, THBS1, RUNX3, NEUROG1, SOC51.

## Ordering Information

Product	Contents	Cat. no.
QIAseq Targeted Methyl Panel (8)	Enzymes, Buffers, Reagents, and Magnetic Beads for generation of 8 libraries including enrichment primer panel. Generated libraries are for use with Illumina Instruments.	335501
QIAseq Targeted Methyl Panel (96)	Enzymes, Buffers, Reagents, and Magnetic Beads for generation of 96 libraries including enrichment primer panel. Generated libraries are for use with Illumina Instruments.	335511
QIAseq Custom Targeted Methyl Panel (96)	Enzymes, Buffers, Reagents, and Magnetic Beads for generation of 96 libraries including enrichment primer panel. Generated libraries are for use with Illumina Instruments.	335602
QIAseq Custom Targeted Methyl Panel (384)	Enzymes, Buffers, Reagents, and Magnetic Beads for generation of 384 libraries including enrichment primer panel. Generated libraries are for use with Illumina Instruments.	333603
QIAseq Methyl DNA 8- Index Kit	Contains all required adapters and primers for the library generation and the library amplification including 8 single use tubes of molecularly indexed adapters IL-Me-N7##, IL-S502 Index Primer, IL-Forward Primer, IL- Universal Primer, and QIAseq A Read 1 Primer I (100 $\mu$ M).	335580
QIAseq Methyl DNA 96- Index A, B, C, or D set	Contains all required adapters and primers for the library generation and the library amplification in plate format and allow generation of 96-384 libraries, including IL-Me- N701-N715 (A or C) or IL-Me-N716-N729 (B or D) adapter plate; IL-S502-S511 (A or B set) or IL-S513-S522 (C or D set) Primer Plate, IL- Forward Primer, and QIAseq A Read 1 Primer I (100 $\mu$ M).	335591 335592 335593 335594
<b>Related products</b>		
QIAseq Library Quant Assay Kit	Laboratory-verified forward and reverse primers for 500 x 25 $\mu$ l reactions (500 $\mu$ l); DNA Standard (100 $\mu$ l); Dilution Buffer (30 ml); (1.35 ml x 5) GeneRead™ qPCR SYBR® Green Mastermix	333314
EpiTect Fast DNA Bisulfite Kit (10)	Trial kit for 10 preps: Bisulfite Solution, DNA Protect Buffer, MinElute DNA Spin Columns, Carrier RNA, and Buffers	59802
EpiTect Fast DNA Bisulfite Kit (50)	For 50 preps: Bisulfite Solution, DNA Protect Buffer, MinElute DNA Spin Columns, Carrier RNA, and Buffers	59824

Product	Contents	Cat. no.
EpiTect Fast DNA Bisulfite Kit (200)	For 200 preps: Lysis Buffer, Proteinase K, Bisulfite Solution, DNA Protect Buffer, MinElute DNA Spin Columns, Carrier RNA, and Buffers	59826
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
GeneRead DNA FFPE Kit (50)	QIAamp MinElute columns, Proteinase K, UNG, collection tubes (2 ml), buffers, Deparaffinization Solution, RNase A	180134
QIAamp MinElute ccfDNA Midi Kit (50)	For 50 preps (4 or 5 ml sample input volume each): QIAamp UCP MinElute Columns, QIAGEN Proteinase K, Magnetic Bead Suspension, Buffers, Bead Elution Tubes, and Collection Tubes (1.5 ml and 2 ml)	55284
QIAseq DNA QuantiMIZE Assay Kit	Assay 100 and Assay 200 for 400 x 25 µl reactions (400 µl) each; QuantiMIZE Control gDNA (50 µl); RNase- and DNase-free water (1 ml x 4); GeneRead qPCR SYBR Green Mastermix (1.35 ml x 4)	333414
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 Targeted Methyl 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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