

QIAseq Targeted DNA Panels

Human Myeloid Neoplasms

Cat. Nos. 333502 DHS-003Z-I2 and 333505 DHS-003Z-96

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

The QIAseq Targeted DNA Human Myeloid Neoplasms Panel permits the sequencing of the whole coding region of 141 genes frequently mutated in myeloid neoplasms, covering 436,672 bases with 5,887 primers. Such frequently detected mutations are likely to be relevant or even important to myeloid neoplasm 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 acute lymphoblastic leukemia (ALL), acute myeloid Leukemia (AML), chronic lymphocytic leukemia (CLL), chronic myeloid leukemia (CML), myelodysplastic syndromes, myeloproliferative neoplasms and other myeloid neoplasms. Using digital DNA sequencing, SNP/indels in a focused panel of genes relevant to myeloid neoplasms 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
ABL1	ADA	ANKRD26	ASXL1
ASXL2	ATM	ATRX	BCL6
BCOR	BCORL1	BCR	BIRC3
BLM	BRAF	BRCA1	BRCA2
BRINP3	C17orf97	CALR	CARD11
CBL	CBLB	CBLC	CDKN2A
CEBPA	CHEK2	CREBBP	CRLF2
CSF1R	CSF3R	CTCF	CUX1
DAXX	DDX41	DNM2	DNMT1
DNMT3A	EED	EGFR	ELANE
EP300	ETNK1	ETV6	EZH2
FAM47A	FAS	FBXW7	FLRT2
FLT3	GATA1	GATA2	GJB3
GNAS	HNRNPK	HRAS	IDH1
IDH2	IKZF1	IKZF3	IL7R
JAK1	JAK2	JAK3	KAT6A
KCNA4	KCNK13	KDM6A	KDR
KIT	KLHDC8B	KLHL6	KMT2A
KMT2C	KRAS	LRRC4	LUC7L2
MAP2K1	MLH1	MPL	MSH2
MSH6	MYC	MYD88	NBN
NF1	NOTCH1	NPAT	NPM1
NRAS	NSD1	NTRK3	OR13H1
OR8B12	P2RY2	PAX5	PCDH81
PDGFRA	PHF6	PML	PMS2
PRAMEF2	PRF1	PRPF40B	PRPF8
PTEN	PTPN11	RAD21	RB1
RELN	RUNX1	SAXO2	SETBP1
SF1	SF3A1	SF3B1	SH2B3
SH2D1A	SMARCB1	SMC1A	SMC3
SRP72	SRSF2	STAG2	STAT3
STXBP2	SUZ12	TAL1	TERC
TERT	TET2	TNFRSF13B	TP53
TPMT	TUBA3C	U2AF1	U2AF2
WAS	WRN	WT1	XPO1
ZRSR2			

Functional Groupings

Acute Lymphoblastic Leukemia (ALL): ASXL2, ATM, BRAF, CALR, CDKN2A, CREBBP, CRLF2, CSF3R, CTCF, DNM2, EGFR, EP300, FBXW7, GATA2, HNRNPK, HRAS, IKZF3, IL7R, KDM6A, KDR, KMT2C, LRRC4, MAP2K1, MLH1, MSH2, MSH6, NOTCH1, NTRK3, PAX5, PDGFRA, PMS2, PRAMEF2, PTEN, RELN, SMARCB1.

Acute Myeloid Leukemia (AML): ANKRD26, ASXL1, ATM, BCOR, BCORL1, BIRC3, BRAF, C17orf97, CALR, CARD11, CBLC, CDKN2A, CEBPA, CHEK2, CREBBP, CSF1R, CSF3R, CTCF, DAXX, DDX41, DNM2, DNMT1, ELANE, EP300, FLRT2, FLT3, GATA1, GATA2, HNRNPK, IDH1, IDH2, IKZF1, IL7R, JAK1, JAK3, KDM6A, KDR, KIT, KMT2A, KMT2C, KRAS, LRRC4, MAP2K1, MPL, MSH6, MYC, NBN, NOTCH1, NPM1, NRAS, NSD1, NTRK3, OR13H1, OR8B12, P2RY2, PCDHB1, PDGFRA, PHF6, PRAMEF2, PRPF8, PTEN, PTPN11, RAD21, RUNX1, SF1, SF3A1, SMARCB1, SMC1A, SMC3, SRP72, SRSF2, STAG2, STXBP2, U2AF1, U2AF2, WT1.

Chronic Lymphocytic Leukemia (CLL): ADA, BIRC3, BLM, BRAF, CALR, CHEK2, CSF3R, KCNA4, KLHL6, KMT2C, MAP2K1, NBN, NPAT, NTRK3, OR13H1, OR8B12, PRAMEF2, SRP72, TAL1, TERT, TUBA3C, WAS, WRN.

Chronic Myeloid Leukemia (CML): ABL1, CALR, CDKN2A, CEBPA, CREBBP, CSF1R, CSF3R, FBXW7, GATA2, KDM6A, MSH2, MSH6, RB1, SMC1A, TP53.

Chronic Myelomonocytic Leukemia (CMML): CALR, CEBPA, CSF1R, CSF3R, HRAS, KMT2C, LUC7L2, SRSF2.

Chronic Neutrophilic Leukemia (CNL): CALR, CSF3R.

Multiple Myeloma: ATM, BCL6, BCR, BIRC3, BRAF, CDKN2A, CEBPA, EGFR, FBXW7, GJB3, HRAS, KDM6A, MYC, NOTCH1, PTEN, SH2D1A, SMARCB1.

Myelodysplastic Syndromes (MDS): ATRX, CALR, CDKN2A, CEBPA, CSF1R, CSF3R, EP300, ETNK1, GNAS, HRAS, KDM6A, KMT2A, KMT2C, RAD21, RB1, SETBP1, SF1, SF3A1, SMC3, SRSF2, STAG2, U2AF1, U2AF2, XPO1, ZRSR2.

Myeloid Malignancies: CBL, CBLB, DNMT3A, EED, ETV6, EZH2, PRPF40B, SUZ12, TET2, TP53.

Myeloproliferative Neoplasm (MPN): ABL1, ASXL1, CALR, CSF1R, JAK2, JAK3, KAT6A, KRAS, MPL, NF1, NRAS, RB1, SETBP1, SF3B1, SH2B3, SRSF2, STAG2.

Myelofibrosis (MF): CALR, CHEK2, IDH1, IDH2, CSF1R, SRSF2.

Other Myeloid Neoplasms: BRAF, CDKN2A, CEBPA, FBXW7, HRAS, IKZF3, KLHDC8B, KMT2C, MSH6, NTRK3, PTEN, SRP72, TPMT.

Other Myeloid Neoplasm Genes: BRCA1, BRCA2, BRINP3, CUX1, FAM47A, FAS, KCNK13, MYD88, PML, PRF1, SAXO2, STAT3, TERC, TNFRSF13B.

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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