

# QIAseq Targeted DNA Pro Panels

## Human Hematologic Malignancy

**Cat. nos. 333651 PHS-203Z-12 and 333655 PHS-203Z-96**

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

The QIAseq Targeted DNA Pro Human Hematologic Malignancy Panel permits the targeted next generation sequencing of the whole coding region of 33 oncogenes and tumor suppressor genes relevant to an inherited predisposition to hematologic malignancies, covering 103,992 bases with 1,276 primers. The panel also targets actionable and interpretable cancer-related germline variants relevant for classification of eosinophilia, lymphoproliferative disorders, mastocytosis, multiple myeloma, myelodysplastic syndromes (MDS), myelofibrosis, myeloproliferative neoplasms (MPN), polycythemia vera, thrombocythemia, and other hematological malignancies. 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 hematologic malignancies 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  $-30^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  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  $2\text{--}8^{\circ}\text{C}$  upon arrival. The QIAseq Targeted DNA Pro Index Kits are shipped on dry ice and should be stored at  $-30^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  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	333651	333655
No. of samples	12	96
One pool of region-specific primers	90 $\mu$ L	700 $\mu$ L
FFPE repair reagent	15 $\mu$ L	80 $\mu$ L
FFPE repair enzyme	17 $\mu$ L	120 $\mu$ L
FX Buffer, 10x	23 $\mu$ L	170 $\mu$ L
5X WGS FX Mix	42 $\mu$ L	330 $\mu$ L
FG Solution	170 $\mu$ L	170 $\mu$ L
UPH Ligation Buffer, 2.5x	288 $\mu$ L	1152 $\mu$ L
DNA Ligase	75 $\mu$ L	330 $\mu$ L
Ligation Cleanup Reagent	30 $\mu$ L	240 $\mu$ L
TEPCR Buffer, 5x	3 x 60 $\mu$ L	3 x 500 $\mu$ L
TEPCR modifier	30 $\mu$ L	230 $\mu$ L
TEPCR Cleanup Reagent	80 $\mu$ L	600 $\mu$ L
UPCR Buffer, 5x	500 $\mu$ L	4 x 500 $\mu$ L
QN Taq Polymerase	2 x 60 $\mu$ L	2 x 450 $\mu$ 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
ATM	BLM	CCND1	CEBPA
CR2	DNMT3A	EPCAM	GATA2
GNB1	HRAS	IDH1	IDH2
JAK1	KIT	LIG4	MLH1
MPL	MSH2	MSH6	NBN
NF1	NRAS	PLAA	PMS2
PMS2CL	RUNX1	SH2B3	SH2D1A
SMAD9	TERC	TERT	THPO
TP53	XIAP		

## Functional Groupings

**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.

## 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
<b>QIAseq Targeted DNA Pro Indices for Ion Torrent platforms</b>		
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
<b>Related products</b>		
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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**Sample to Insight**