

QIAseq Targeted DNA Pro Panels Human Breast

Cancer Research

Cat. nos. 333651 PHS-001Z-12 and 333655 PHS-001Z-96

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

The QIAseq Targeted DNA Pro Human Breast Cancer Research Panel permits the targeted next generation sequencing analysis of the whole coding region of 54 oncogenes and tumor suppressor genes relevant to breast cancer, covering 203,082 bases with 2,534 primers. The panel also targets actionable and interpretable cancer-related somatic variants relevant for tumor classification of ductal carcinomas, ER-positive carcinomas, HER-positive carcinomas, and other breast 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), the American Society Of Hematology (ASH), the Association for Molecular Pathology (AMP), the American Society of Clinical Oncology (ASCO), the College of American Pathologists (CAP), the European Society for Medical Oncology (ESMO), and the National Comprehensive Cancer Network (NCCN); 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) clinical trial documents from resources such as Cancer.gov, ClinicalTrials.gov, and the UMIN Clinical Trials Registry; 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 breast 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 $2\text{--}8^{\circ}\text{C}$ upon arrival. The QIAseq Targeted DNA Pro Index Kits are shipped on dry ice and should be stored at -30°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	333651	333655
No. of samples	12	96
One pool of region-specific primers	90 µL	700 µL
FFPE repair reagent	15 µL	80 µL
FFPE repair enzyme	17 µL	120 µL
FX Buffer, 10x	23 µL	170 µL
5X WGS FX Mix	42 µL	330 µL
FG Solution	170 µL	170 µL
UPH Ligation Buffer, 2.5x	288 µL	1152 µL
DNA Ligase	75 µL	330 µL
Ligation Cleanup Reagent	30 µL	240 µL
TEPCR Buffer, 5x	3 x 60 µL	3 x 500 µL
TEPCR modifier	30 µL	230 µL
TEPCR Cleanup Reagent	80 µL	600 µL
UPCR Buffer, 5x	500 µL	4 x 500 µL
QN Taq Polymerase	2 x 60 µL	2 x 450 µL
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
AKT1	AR	ATM	BARD1
BRCA1	BRCA2	BRIP1	CCND1
CDH1	CDK12	CDK4	CHEK1
CHEK2	CYP2D6	EGFR	ERBB2
ERBB3	ESR1	FANCD2	FANCL
FBXW7	FGFR1	FGFR2	KIT
KRAS	MDM2	MET	MLH1
MLH3	MRE11	MSH2	MSH3
MSH6	MYC	NBN	NF1
NTRK3	PALB2	PDGFRA	PIK3CA
PMS1	PMS2	PPM1D	PPP2R1A
PTEN	RAD51B	RAD51C	RAD51D
RAD54L	RB1CC1	SF3B1	SLC22A18
STK11	TP53		

Functional Groupings

Carcinomas: ATM, BARD1, BRCA1, BRCA2, BRIP1, CDK12, CDK4, CHEK1, CHEK2, EGFR, ERBB2, ESR1, FANCL, KIT, KRAS, MET, MLH1, MLH3, MSH2, MSH3, MSH6, PALB2, PDGFRA, PIK3CA, PMS1, PMS2, RAD51B, RAD51C, RAD51D, RAD54L.

Ductal Carcinomas: AR, CCND1, CDH1, CYP2D6, FANCD2, FBXW7, FGFR1, FGFR2, MRE11, MYC, NBN, NTRK3, PPM1D, PPP2R1A, RB1CC1, SF3B1, SLC22A18, STK11, TP53.

ER-Positive Carcinomas: CDH1, RB1CC1, SF3B1.

HER-Positive Carcinomas: AR, CCND1, FANCD2, NTRK3, PPM1D, RB1CC1.

Metastatic Breast Cancers: AKT1, BRCA1, BRCA2, ERBB2, ERBB3, ESR1, MDM2, NF1, PALB2, PIK3CA, PTEN.

Mismatch Repair (MMR) Genes: MLH1, MSH2, MSH6, PMS2.

Microsatellite Instability (MSI) Loci: BAT25, BAT26, BAT34C4, BAT40, D10S196, D13S175, D17S250, D17S588, D17S787, D18S35, D18S55, D18S61, D18S64, D18S69, D20S100, D2S123, D3S1029, D5S107, D5S346, D7S519, D8S87, HSP110-T17, MONO-27, NR21, NR22.

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
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

Product	Contents	Cat. no.
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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