

QIAseq RNA Fusion XP Panels

Leukemia

Cat. nos. 334602 JHS-001Z-12 and 334605 JHS-001Z-96

For constructing molecularly barcoded libraries from RNA for gene fusion, exon skipping, gene expression, and RNA SNV/InDel analysis using digital NGS

The QIAseq RNA Fusion XP Leukemia Panel permits the use of next-generation sequencing using 2,010 primers to detect fusions to 196 genes and RNA SNP/indels in 57 genes frequently observed in leukemia as well as the relative gene expression of 149 genes with signatures relevant to leukemia. Such frequently detected mutations and fusions are likely to be relevant or even important to leukemia 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 and frequently detected fusions were collected for acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), acute myelomonocytic leukemia (AMML), B-cell acute lymphoblastic leukemia (B-ALL), chronic lymphocytic leukemia (CLL), chronic myeloid leukemia (CML), chronic myelomonocytic leukemia (CMML), T-cell acute lymphoblastic leukemia (T-ALL), and other leukemias. For the same cancer subtypes, additional fusions were also collected from the Archer Quiver Database, the Human Somatic Mutation Database (HSMD), requests and suggestions by QIAGEN KOLs and SMEs, and other peer-reviewed publications. Peer-reviewed publications were used to collect gene expression markers for leukemia and its subtypes, leukemia stem cells and their proliferation, and those with possible prognostic significance in terms of clinical outcome, chemotherapy resistance, treatment options, invasiveness, infiltration, and minimal residual disease. Genes whose expression is altered due to genetic alterations in leukemia are also included. Using digital DNA sequencing, fusions to, relative gene expression of, and RNA SNP/indels in three different focused panels of genes relevant to leukemia can be assessed with this primer pool.

For further details, consult the *QIAseq RNA Fusion XP Panels Handbook*.



Shipping and storage

The QIAseq RNA Fusion XP Panel Kit is shipped with dry ice (Box 1) and must be stored at -20°C upon arrival. Box 2 (QIAseq Beads) is shipped on cold packs and should be stored at 4°C . When stored under these conditions and handled correctly, the product can be kept based on the expiration date on each component without reduction in performance.

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

Panel Contents

QIAseq RNA Fusion XP Panel catalog number	334602	334605
No. of preps	12	96
Box 1 of 2		
QIAseq RNA Fusion XP Panel	48 μL	384 μL
RP Primer II	12 μL	96 μL
EZ Reverse Transcriptase	15 μL	96 μL
BC3 Buffer, 5x	24 μL	192 μL
RNase Inhibitor	12 μL	96 μL
RH RNase	12 μL	96 μL
dNTP II	18 μL	144 μL
BLU Buffer, 10x	24 μL	192 μL
POL Enzyme	12 μL	96 μL
ERA Enzyme	120 μL	960 μL
ERA Buffer, 10x	60 μL	480 μL
DNA Ligase	120 μL	960 μL
Ligation Buffer, 5x	240 μL	2 $\times$ 1250 μL
TEPCR Buffer, 5x	60 μL	500 μL
RNA Buffer II, 5x	48 μL	2 $\times$ 384 μL
TaqIT Plus enzyme	15 μL	2 $\times$ 120 μL
HotStarTaq® DNA Polymerase	30 μL	240 μL
Box 2 of 2		
QIAseq Beads	10 mL	55 mL

Gene Table: RNA Fusions

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ABI1	ABI2	ABL1	ABL2	ACSL6
ACTN4	AFDN	AFF1	AFF3	AFF4
AGGF1	ALK	ANLN	ARHGAP26	ARHGEF12
ASNS	ATF7IP	AUTS2	BAIAP2L1	BCL9
BCOR	BCR	BRAF	BTBD18	CASC5
CBFA2T3	CBFB	CBL	CCDC6	CCDC88C
CD74	CEP170B	CHD1	CHIC2	CREBBP
CSF1R	CT45A2	DAB2IP	DDX10	DDX3X
DEK	DHH	EBF1	EGFR	ELL
ELN	EML1	EML4	EP300	EPS15
ERG	ESRRB	ETV6	EW5R1	FGFR1
FGFR1OP	FGFR3	FIP1L1	FLNA	FLT3
FNBP1	FOXO3	FOXO4	FOXP1	FRYL
FUS	GAS7	GATA1	GLIS2	GPHN
HAUS1	HLF	HNRNPUL1	HOXA9	HOXC11
HOXC13	HOXD13	IKZF3	INPP5D	IRF2BP2
JAK2	KAT6A	KDM5A	KIAA1524	KIF5B
KMT2A	KMT2E	LASP1	LMNA	LNP1
LPP	LYN	MAML2	MAPRE1	MECOM
MEF2D	MET	MKL1	MLF1	MLLT1
MLLT10	MLLT11	MLLT3	MLLT6	MN1
MNX1	MYB	MYC	MYH11	MYO1F
NCKIPSD	NCOA2	NCOA4	NDE1	NF1
NOTCH1	NPM1	NSD1	NTRK1	NTRK3
NUMA1	NUP214	NUP98	P2RY8	PAX5
PAX8	PBX1	PCM1	PDCD1LG2	PDGFRA
PDGFRB	PDS5A	PHF23	PICALM	PML
PPARG	PRDM16	PRKG2	PRRX1	PSIP1
PTPRR	RANBP2	RAP1GDS1	RARA	RBM15
RCSD1	RET	RHEBL1	ROS1	RPL22
RPN1	RUNX1	RUNX1T1	SALL2	SARNP
SEPTIN14	SEPTIN2	SEPTIN5	SEPTIN6	SEPTIN9
SET	SETD2	SFPQ	SH3GL1	SLC34A2
SLC45A3	SORBS2	SPI1	SSBP2	STAT5B
STIL	STMN1	TACC3	TAF15	TAL1
TCF3	TCF7	TET1	TFG	TMPRSS2
TNIP1	TOP1	TOP3A	TPM3	TRIP11
UBA2	USP42	USP9X	WHSC1L1	WTIP
ZBTB16	ZFYVE19	ZMIZ1	ZMYM2	ZNF384
ZNF521				

Gene Table: Gene Expression

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ABCA6	ABCB1	ADGRE5	ADGRG1	AHI1
AIM2	AKT1	ANGPT2	ANPEP	ASS1
AURKA	AURKB	BAALC	BAX	BCL11A
BCL11B	BCL2	BCL9	BIRC2	BIRC5
BMII	BRD4	BTG1	BTBK	CASP8AP2
CCNA1	CCND2	CD19	CD1A	CD2
CD200	CD22	CD24	CD27	CD274
CD300A	CD33	CD34	CD38	CD3D
CD4	CD44	CD47	CD5	CD69
CD7	CD72	CD79A	CD79B	CD86
CD8A	CD96	CD99	CDC25A	CDKN2A
CDKN2B	CEBPA	CEBPD	CEBPD	CEBPE
CEBPG	CLEC12A	CR2	CRLF2	CXCL12
CXCR4	EBF1	EPOR	ERG	ETV6
FCGR2A	FLT3	FOXM1	FOXO3	GATA2
HAVCR2	HGF	HLA-DRA	HLA-DRB1	HOXA1
HOXA9	ID4	IGF2BP1	IKZF1	IL2RA
IL3	IL3RA	IL7	IRS4	ITGA4
ITGA6	ITGAM	JUN	KCNN4	KIT
KLF4	LAI1	LCK	LEF1	LHX4
LIN28A	LMO1	LMO2	LPL	LYL1
MCL1	MECOM	MEIS1	MME	MMP9
MN1	MS4A1	MYB	MYC	NKX2-5
NOTCH1	NPM1	OLIG2	PAX5	PBX1
POU5F1	PTCH1	PTPRC	RANBP17	RB1
ROR1	RUNX1	SERPINI1	SMARCA4	SMYD2
SOX11	SOX2	SPI1	TAL1	TAL2
TCL1A	THBS1	THY1	TLX1	TLX3
TNF	TTN	UGT2B17	VEGFA	VPREB3
WNT3	WT1	XIAP	ZAP70	

Gene Table: RNA SNP/indel

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ABL1	ASXL1	ATM	BCOR	BRAF
CBL	CBLB	CDKN2A	CHEK2	CREBBP
CSF3R	CUX1	DAXX	DNM2	DNMT3A
EGFR	ETNK1	EZH2	FBXW7	FLT3
GATA2	GNA5	HRA5	IDH1	IDH2
JAK1	JAK2	JAK3	KIT	KMT2D
KRAS	MAP2K1	MLH1	MPL	MYC
MYD88	NRAS	PAX5	PBRM1	PDGFRA
PPM1D	PTEN	PTPN11	RAD21	RET
RUNX1	SETBP1	SF3B1	SH2B3	SMARCB1
SRSF2	STAT3	TERT	U2AF1	WT1
XPO1	ZRSR2			

Functional Groupings

GENE FUSIONS:

Acute Leukemia of Ambiguous Lineage: ABL1, AFF1, BCR, CT45A2, ETV6, EWSR1, GPHN, KMT2A, MLLT10, MN1, NUP214, PBX1, SET, TCF3, ZNF384.

Acute Lymphoblastic Leukemia (ALL): ABL1, ABL2, ACTN4, AFDN, AFF1, AFF3, AFF4, AGGF1, ANLN, ASNS, ATF7IP, AUTS2, BCL9, BCR, BTBD18, CASC5, CREBBP, CSF1R, DDX3X, EBF1, ELL, ELN, EML1, EP300, EPS15, ESRRB, ETV6, EWSR1, FGFR1, FGFR1OP, FLT3, FOXO4, FOXP1, FRYL, GAS7, GPHN, HLF, HNRNPUL1, INPP5D, JAK2, KMT2A, KMT2E, LNP1, MAML2, MEF2D, MLLT1, MLLT10, MLLT3, MN1, MNX1, MYB, MYC, NCOA2, NOTCH1, NUP214, NUP98, P2RY8, PAX5, PBX1, PCM1, PDGFRB, PICALM, PML, PRDM16, RAPIGDS1, RARA, RCSD1, RUNX1, SALL2, SET, SFPQ, SPI1, SSBP2, STIL, STMN1, TAF15, TAL1, TCF3, TCF7, TET1, USP9X, ZBTB16, ZMIZ1, ZMYM2, ZNF384, ZNF521.

Acute Myeloid Leukemia (AML): ABI1, ABI2, ABL1, AFDN, AFF1, AFF4, ALK, ANLN, ARHGAP26, ARHGEF12, BCOR, BCR, CASC5, CBFA2T3, CBFB, CBL, CCDC88C, CEP170B, CHD1, CHIC2, CREBBP, DAB2IP, DDX10, DEK, DHH, ELL, EP300, EPS15, ERG, ETV6, FGFR1, FIP1L1, FLNA, FNBP1, FOXO3, FOXO4, FRYL, FUS, GAS7, GATA1, GLIS2, GPHN, HAUS1, HOXA9, HOXC11, HOXC13, HOXD13, IRF2BP2, JAK2, KAT6A, KDM5A, KIAA1524, KMT2A, LASP1, LNP1, LPP, LYN, MAML2, MECOM, MKL1, MLF1, MLLT1, MLLT10, MLLT11, MLLT3, MLLT6, MN1, MNX1, MYB, MYH11, MYO1F, NCKIP5D, NCOA2, NF1, NPM1, NSD1, NTRK3, NUMA1, NUP214, NUP98, PBX1, PCM1, PDGFRA, PDGFRB, PDS5A, PHF23, PICALM, PML, PRDM16, PRRX1, PSIP1, PTPRR, RANBP2, RARA, RBM15, RHEBL1, RPL22, RPN1, RUNX1, RUNX1T1, SARNP, SEPT2, SEPT5, SEPT6, SEPT9, SET, SH3GL1, SORBS2, STAT5B, TAF15, TCF3, TET1, TFG, TOP1, TOP3A, TRIP11, UBA2, USP42, WHSC1L1, WTIP, ZBTB16, ZFYVE19, ZNF384.

Acute Myelomonocytic Leukemia (AMML): FLNA, HOXD13, NUP98.

B-Cell Acute Lymphoblastic Leukemia (B-ALL): ABL1, ACTN4, AFF1, AFF3, AFF4, ATF7IP, BCR, BTBD18, EPS15, ERG, ESRRB, ETV6, EWSR1, FUS, GAS7, JAK2, KMT2A, MAPRE1, MLLT1, NUP214, P2RY8, PAX5, PBX1, PCM1, RUNX1, SET, SSBP2, TCF3, USP9X, ZNF384, ZNF521.

Blast Phase Chronic Myeloid Leukemia: ABL1, BCR, ETV6, JAK2.

Chronic Eosinophilic Leukemia: ACSL6, TNIP1.

Chronic Lymphocytic Leukemia (CLL): MYC, NOTCH1.

Chronic Myeloid Leukemia (CML): ABL1, BCR, CCDC88C, ETV6, JAK2, MECOM, MN1, NDE1, NUP98, PCM1, PDGFRB, RUNX1.

Chronic Myelomonocytic Leukemia (CMML): CREBBP, ELL, ETV6, KMT2A, MN1.

Myelodysplastic Syndromes (MDS): ABL1, ACTN4, ALK, CASC5, CREBBP, DEK, ERG, ETV6, FRYL, FUS, HOXD13, JAK2, KMT2A, LNP1, MAML2, MECOM, MLF1, MN1, MNX1, NDE1, NPM1, NUP214, NUP98, PCM1, PDGFRB, PRDM16, PTPRR, RANBP2, RUNX1, RUNX1T1, TOP1.

Myeloproliferative Neoplasms (MPN): ABL1, ACSL6, BCR, ETV6, FGFR1, FGFR1OP, FIP1L1, FLT3, HOXA9, HOXD13, JAK2, LYN, MECOM, MLF1, MN1, NPM1, NUP98, PDGFRB, PRKG2, PSIP1, RARA, RUNX1, TNIP1, ZMYM2.

T-Cell Acute Lymphoblastic Leukemia (T-ALL): ABL1, AFDN, AGGF1, ASNS, BCR, CASC5, DDX3X, ETV6, JAK2, KMT2A, KMT2E, MLLT1, MLLT10, NOTCH1, NUP214, PBX1, RUNX1, SALL2, SET, SPI1, STIL, STMN1, TAL1, TCF3, TCF7.

Other Leukemias: IKZF3, IRF2BP2, MYC, NPM1, PDCD1LG2, SETD2.

Commercial Control Samples: ALK, BAIAP2L1, BRAF, CCDC6, CD74, EGFR, EML4, ERG, ETV6, FGFR3, KIF5B, LMNA, MET, NCOA4, NTRK1, NTRK3, PAX8, PPARG, RET, ROS1, SEPT14, SLC34A2, SLC45A3, TACC3, TFG, TMPRSS2, TPM3.

GENE EXPRESSION:

General Leukemia Markers: ANPEP, CD19, CD200, CD33, CD34, CD38, CR2, FOXM1, FOXO3, HOXA9, ITGA6, KIT, MS4A1, RUNX1.

Leukemia Subtype Marker:

Acute Lymphoblastic Leukemia (ALL): ANPEP, BTG1, CASP8AP2, CD19, CD1A, CD2, CD22, CD33, CD5, CD7, CD79A, CD8A, CR2, ETV6, HLA-DRA, HLA-DRB1, IL2RA, JUN, KIT, LMO1, LMO2, LYL1, MEIS1, MME, MS4A1, MYC, PBX1, PTPRC, RB1, VEGFA, WT1.

B Cell Acute Lymphoblastic Leukemia (B-ALL): BTG1, CD300A, CD72, CD79A, CD79B, CD86, CDKN2A, CDKN2B, CRLF2, EBF1, ETV6, HOXA9, IKZF1, PAX5, RB1.

T Cell Acute Lymphoblastic Leukemia (T-ALL): BTK, CD27, CD4, KCNN4, LMO1, LMO2, LYL1, MMP9, RUNX1, SERPINI1, TAL1, THBS1, TLX1, TLX3, VPREB3.

Acute Myeloid Leukemia (AML): ADGRE5, ASS1, BAALC, BCL11B, BIRC5, CD200, CD300A, CD44, CD86, CD96, CD99, CLEC12A, ERG, FCGR2A, FLT3, HAVCR2, IL2RA, JUN, KIT, KLF4, LEF1, MECOM, MEIS1, MMP9, NPM1, PTPRC, THBS1, VEGFA, WT1.

Chronic Lymphocytic Leukemia (CLL): ABCA6, AIM2, AKT1, BAX, BCL2, BIRC2, BTK, CD19, CD200, CD24, CD27, CD5, CD79B, CXCR4, IL7, ITGA4, ITGAM, JUN, KCNN4, LAIR1, LEF1, MCL1, MMP9, MS4A1, ROR1, SERPINI1, SOX11, THBS1, TNF, TTN, VEGFA, VPREB3, WNT3.

Chronic Myeloid Leukemia (CML): AURKA, AURKB, IL2RA, JUN, KIT, PTCH1, PTPRC.

Other Leukemia Subtypes: CD72, IL2RA, SPI1.

Leukemia Stem Cell & Proliferation Markers: ADGRG1, BAALC, BMI1, CD33, CD34, CD44, CD47, CD96, CD99, CLEC12A, CXCL12, CXCR4, ERG, FCGR2A, HAVCR2, IL2RA, IL3RA, KIT, KLF4, LAIR1, LIN28A, MYC, POU5F1, PTPRC, SOX2, THY1, WT1.

Possible Prognostic Significance:

Indicator of Clinical Outcome in Leukemia: AURKB, BAALC, BIRC5, ERG, FOXO3, GATA2, MECOM, MEIS1, RUNX1, SPI1, WT1.

Acute Lymphoblastic Leukemia (ALL): ABCB1, AKT1, ANPEP, BIRC5, CD33, CD3D, CD44, FLT3, HOXA9, IKZF1, JUN, MME, MYC, PAX5, SMYD2.

B Cell Acute Lymphoblastic Leukemia (B-ALL): ANPEP, CD33, CRLF2, JUN, MS4A1.

T Cell Acute Lymphoblastic Leukemia (T-ALL): BCL11B, BMI1, LMO1, LMO2, LYL1, MYC, TAL1, TLX1, TLX3.

Acute Myeloid Leukemia (AML): ABCB1, ANGPT2, BAALC, BCL2, BIRC2, BIRC5, BMI1, CCNA1, CD200, CD34, CD4, CD44, CD47, CD96, CLEC12A, CXCL12, CXCR4, ERG, GATA2, HAVCR2, HGF, IL2RA, IL3RA, KLF4, LEF1, MECOM, MEIS1, MN1, MYC, RUNX1, SOX11, SOX2, SPI1, WT1, XIAP.

Chronic Lymphocytic Leukemia (CLL): ABCA6, ANGPT2, BCL2, CD24, CD38, CD69, ITGA4, KCNN4, LAIR1, LPL, MS4A1, MYC, NOTCH1, ROR1, SOX11, TTN, UGT2B17, VPREB3, WNT3, ZAP70.

Chronic Myeloid Leukemia (CML): AURKA, AURKB, LIN28A, MCL1, PTCH1.

Chemotherapy Resistance Related: AKT1, AURKB, BAALC, BCL2, BIRC2, CD274, CD44, CD47, ERG, HLA-DRA, HLA-DRB1, IL3RA, MCL1, MYC, XIAP.

Hypoxia & Oxidative Stress Related: ANGPT2, VEGFA.

Treatment Target or Treatment Indicator: ASS1, BMI1, CASP8AP2, CD33, CD47, CD69, CD96, CDC25A, CDKN2A, CDKN2B, CLEC12A, CXCR4, FLT3, FOXM1, FOXO3, HAVCR2, IL3RA, ITGAM, KLF4, LMO2, MS4A1, MYC, PTCH1, SERPINI1, SMARCA4, TAL1, ZAP70.

Associated with Invasiveness or Infiltration into Central Nervous System: CXCL12, CXCR4, ZAP70.

Minimal Residual Disease: ADGRE5, BAALC, BCL2, CD19, CD200, CD24, CD300A, CD44, CD47, CD69, CD72, CD79B, CD86, CD99, CLEC12A, HAVCR2, IL2RA, IL3RA, ITGA6, NPM1, PBX1, WT1.

Mechanistic Role in Pathogenesis: BCL11B, BCL2, BMI1, ERG, FOXM1, GATA2, HOXA9, LMO2, LPL, MEIS1, NOTCH1, PAX5, SPI1, TAL1, TLX1, TLX3, TNF, VEGFA, WT1.

Expression Altered due to Genetic Alterations:

Acute Lymphoblastic Leukemia (ALL): AH11, BCL11A, BCL2, BCL9, BRD4, CCND2, CEBPA, CEBPB, CEBPD, CEBPE, CEBPG, CRLF2, EPOR, ETV6, HOXA1, ID4, IGF2BP1, IL3, IRS4, LCK, LHX4, LMO1, LMO2, LYL1, MYB, MYC, NKX2-5, NOTCH1, OLIG2, TAL2, TLX1, TLX3.

Acute Myeloid Leukemia (AML): MECOM, NKX2-5, RANBP17, TCL1A, TLX3.

Other Leukemia Subtypes & Other Genetic Alterations: BAALC, BCL11B, CRLF2, ERG, KIT, LMO1, LPL, NPM1, TAL1, ZAP70.

RNA SNP/INDELS:

Acute Lymphoblastic Leukemia (ALL): ATM, BRAF, CDKN2A, CREBBP, CSF3R, DNM2, EGFR, FBXW7, GATA2, HRAS, MAP2K1, MLH1, PAX5, PDGFRA, PTEN, SMARCB1.

Acute Myeloid Leukemia (AML): ASXL1, ATM, BCOR, BRAF, CDKN2A, CHEK2, CREBBP, CSF3R, DAXX, DNM2, FLT3, GATA2, IDH1, IDH2, JAK1, JAK3, KIT, KMT2D, KRAS, MAP2K1, MPL, MYC, NRAS, PBRM1, PDGFRA, PPM1D, PTEN, PTPN11, RAD21, RET, RUNX1, SMARCB1, SRSF2, U2AF1, WT1.

Chronic Lymphocytic Leukemia (CLL): BRAF, CHEK2, CSF3R, MAP2K1, TERT.

Chronic Myeloid Leukemia (CML): ABL1, CDKN2A, CREBBP, CSF3R, FBXW7, GATA2.

Chronic Myelomonocytic Leukemia (CMML): CSF3R, HRAS, SRSF2.

Chronic Neutrophilic Leukemia (CNL): CSF3R.

Multiple Myeloma: ATM, BRAF, CDKN2A, EGFR, FBXW7, HRAS, MYC, PTEN, SMARCB1.

Myelodysplastic Syndromes (MDS): CDKN2A, CSF3R, ETNK1, GNAS, HRAS, RAD21, SETBP1, SRSF2, U2AF1, XPO1, ZRSR2.

Myelofibrosis: CHEK2, IDH1, IDH2, SRSF2.

Myeloid Malignancies: CBL, CBLB, DNMT3A, EZH2.

Myeloproliferative Neoplasms (MPN): ABL1, ASXL1, JAK2, JAK3, KRAS, MPL, NRAS, SETBP1, SF3B1, SH2B3, SRSF2.

Other Myeloid Neoplasms: BRAF, CDKN2A, CUX1, FBXW7, HRAS, MYD88, PTEN, STAT3.

Ordering Information

Product	Contents	Cat. no.
QIAseq RNA Fusion XP Panel (12)	Kit containing ALL reagents (except indices) sufficient to process 12 samples for RNA sequencing analysis of gene fusions, gene expression and RNA SNP/InDel	334602
QIAseq RNA Fusion XP Panel (96)	Kit containing ALL reagents (except indices) sufficient to process 96 samples for RNA sequencing analysis of gene fusions, gene expression and RNA SNP/InDel	334605
QIAseq RNA Fusion XP Custom Panel	Kit containing reagents for first-strand synthesis, second- strand synthesis, end-repair/A-addition, gene-specific amplification, and QIAseq Beads for RNA Fusion XP sequencing, custom panel for 96 samples	334625
QIAseq RNA Fusion XP Booster Panel	Pool of primers used in combination with either catalogued or custom panels	334635
QIAseq 8-Unique Dual Index Set A (48)	Box containing unique dual-indexed adapters, for indexing up to 8 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 48 samples; the first of 2 sets required for multiplexing up to 16 samples	333715
QIAseq 8-Unique Dual Index Set B (48)	Box containing unique dual-indexed adapters, for indexing up to 8 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 48 samples; the second of 2 sets required for multiplexing up to 16 samples	333716
QIAseq 96-Unique Dual Index Set A (384)	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 384 samples; the first of 2 sets required for multiplexing up to 192 samples	333725
QIAseq 96-Unique Dual Index Set B (384)	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 384 samples; the second of 2 sets required for multiplexing up to 192 samples	333735
QIAseq 96-Unique Dual Index Set A V2 (96) *	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 96 samples; four sets are required for multiplexing up to 384 samples	331745

Product	Contents	Cat. no.
QIAseq 96-Unique Dual Index Set B V2 (96) *	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 96 samples; four sets are required for multiplexing up to 384 samples	331755
QIAseq 96-Unique Dual Index Set C V2 (96) *	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 96 samples; four sets are required for multiplexing up to 384 samples	331765
QIAseq 96-Unique Dual Index Set D V2 (96) *	Box containing unique dual-indexed adapters, for indexing up to 96 samples for QIAseq Targeted Panel sequencing on Illumina platforms; enough to process a total of 96 samples; four sets are required for multiplexing up to 384 samples	331775
QIAseq 12-Index L (48)	Box containing oligos, 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 oligos in arrays, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Ion Torrent platforms	333777
Human XpressRef Universal Total RNA	2 tubes each containing 100 µg human RNA at 1mg/mL	338112
RNeasy Mini Kit (50)	50 RNeasy Mini Spin Columns, Collection Tubes (1.5 mL and 2 mL), RNase-free reagents, and buffers	74104
RNeasy FFPE Kit (50)	50 RNeasy MinElute® Spin Columns, Collection Tubes, Proteinase K, RNase-Free DNase I, DNase Booster Buffer, RNase-free buffers, and Nuclease-Free Water	73504
PAXgene® Blood RNA Kit (50)	50 PAXgene Spin Columns, 50 PAXgene Shredder Spin Columns, Processing Tubes, RNase-Free DNase I, RNase-free reagents, and buffers; to be used in conjunction with PAXgene Blood RNA Tubes	762174
RNeasy Micro Kit (50)	50 RNeasy MinElute Spin Columns, Collection Tubes (1.5 mL and 2 mL), RNase-free DNase I, Carrier RNA, RNase-free reagents, and buffers	74004
QIAamp® RNA Blood Mini Kit (50)	50 QIAamp Mini Spin Columns, 50 QIAshredder Spin Columns, Collection Tubes (1.5 mL and 2 mL), RNase-free reagents, and buffers	52304

Product	Contents	Cat. no.
QIAseq FastSelect – rRNA HMR Kit (24)	Includes 3 tubes of QIAseq FastSelect reagent for rRNA removal: sufficient for 24 reactions from human, mouse, and rat samples	334386
QIAseq FastSelect – rRNA/Globin Kit (24)	Includes 1 tube of QIAseq FastSelect reagent for rRNA removal and 1 tube of QIAseq FastSelect reagent for globin mRNA removal	335376

QIAseq RNA Fusion XP 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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