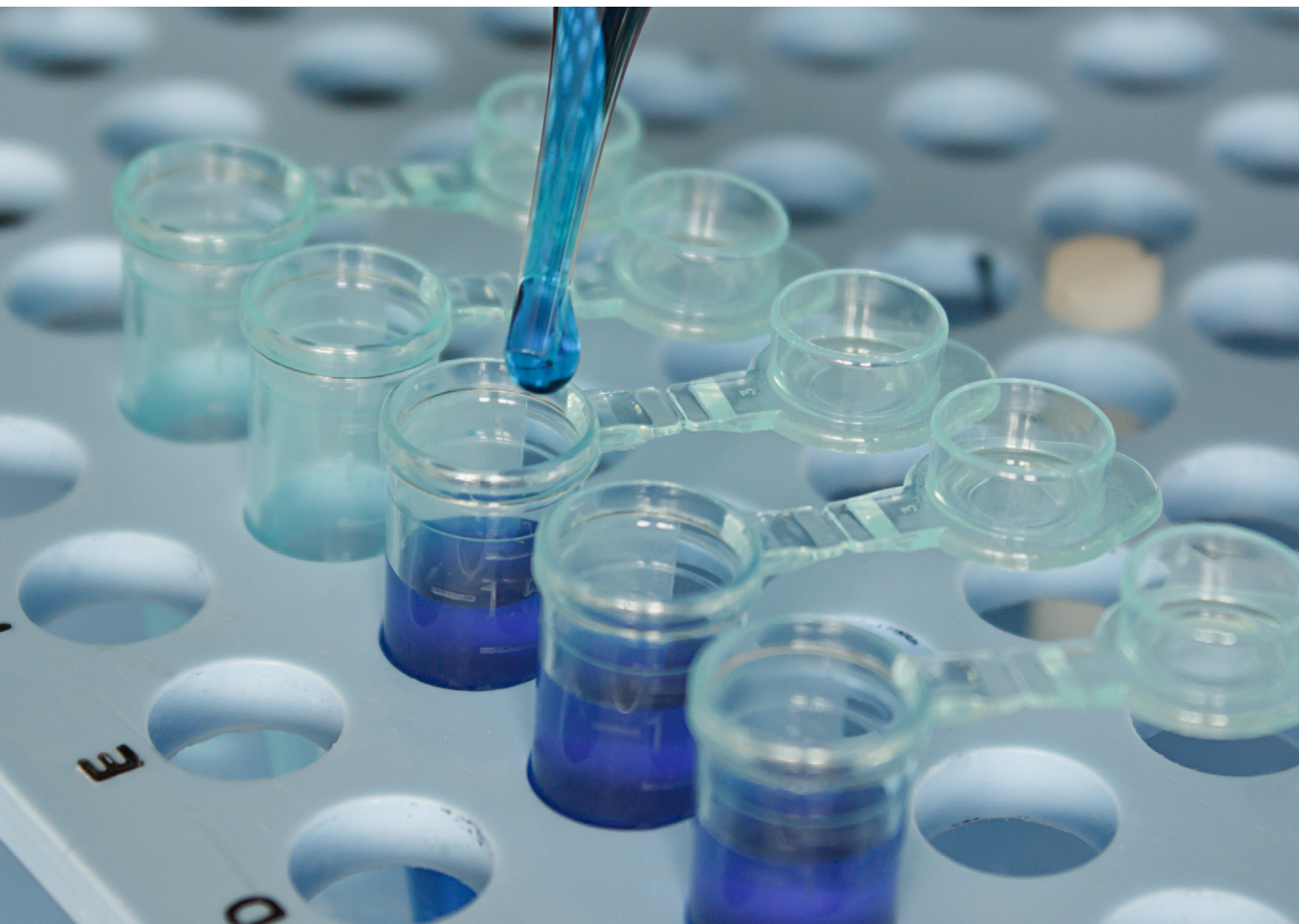


Product Catalog

August 2023



A close-up, profile view of a young man in a white lab coat, looking down intently at his work. He is wearing white gloves and is positioned in a laboratory setting. In the foreground, a pipette is visible, with a blue tip and a white body. The background is softly blurred, showing laboratory equipment and a blue wall. The overall lighting is bright and clean, with a slight blue tint.

About iGeneTech

iGeneTech Bioscience, founded in Beijing in 2014, is a biotechnology company focusing on the development and supply of target gene "reading" and "writing" solutions with our three proud technology platforms: NGS hybridization capture, multiplex PCR and high-throughput DNA synthesis. We provide catalog and customized NGS target enrichment panels, NGS reagents and kits, OEM and CDMO services and automation solutions to thousands of customers from various fields including healthcare, agriculture, microbiology and academic research. We've set high quality standards to our NGS products, and our quality management system has received ISO 13485:2016 and ISO 9001:2015 certifications.

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Pre-designed Panels

AIExome® Human Exome Panel

AIExome® Human Exome Panel V3

AIExome® Human Exome Panel V3 is designed based on human reference genome GRCh38 and recent patch sequences, spanning about 34.4 Mb of CDS regions of human genome with high coverage of protein coding region from recent versions of RefSeq, CCDS, GENCODE database.

Recommended sequencing depth / data size: 100X / 8 Gb

AIExome® Human Exome Panel V3 - Inherit

AIExome® Human Exome Panel V3-Inherit is designed based on AIExome® V3 with additional coverage of significant mutation sites from ClinVar, a complete sequence of mitochondria and high-density SNP backbones for CNV analysis to ensure a comprehensive understanding of rare and inherited diseases.

Recommended sequencing depth / data size: 100X / 11 Gb

AIExome® Human Exome Panel V3 - Tumor

AIExome® Human Exome Panel V3-Tumor is designed based on AIExome® V3 for an expansion and enhancement of probes to detect more tumor related mutations, including 641 tumor-related hotspot genes, 38 fusion related introns, 15 microsatellite loci and HLA genes.

Recommended sequencing depth / data size: 200X with hotspot region >500X / 20 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
AIExome® Human Exome Panel V3	T600V1	34.4 Mb	16 rxn	PT1008091
			96 rxn	PT1008092
AIExome® Human Exome Panel V3 - Inherit	T600V1G	36.6 Mb	16 rxn	PT1008101
			96 rxn	PT1008102
AIExome® Human Exome Panel V3 - Tumor	T600V1ST	34.9 Mb	16 rxn	PT1009181
			96 rxn	PT1009182

Genetic Disorders

TargetSeq® Human Mitochondrial Panel

TargetSeq® Human Mitochondrial Panel, with the probes designed to cover a complete sequence of human mitochondria (16,569 bp), could accurately capture the homologous region and avoid nuclear genome contamination in order to meet the needs of heterogeneous site analysis. This panel could be applied as spike-in panel for AIExome® V3 or V3-Inherit.

Recommended sequencing depth / data size: 5,000X / 0.2 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® Human Mitochondrial Panel	T033	16.5 kb	16 rxn	PT1000021
			96 rxn	PT1000022

MultipSeq® Human Mitochondria Research Assay (for Illumina)

MultipSeq® Human Mitochondria Research Assay (for Illumina) includes 111 pairs of specific designed primers for the capture of human mitochondria genome. With short TAT and high sensitivity, it could achieve library preparation with amount of input as low as 100 pg and above 99% coverage of data performance.

Recommended sequencing depth / data size: 5,000X / 0.2 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
MultiSeq® Human Mitochondria Research Assay (for Illumina)	A102V1	16.5 kb	16 rxn	M62101
			96 rxn	M62102

Oncology

TargetSeq® Pan-Cancer Panel

TargetSeq® Pan-Cancer Panel covers 641 genes related to targeted therapy and genetic susceptibility of solid tumors, 38 hotspot fusion introns and 15 microsatellite loci. The panel enables detection of variant types including SNV, InDel, Fusion, CNV and analysis of TMB and MSI, providing reference for tumor targeted therapy, immunotherapy and hereditary tumor risk prediction.

Recommended sequencing depth / data size: 500X / 3 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® Pan-Cancer Panel	T364V1	2.1 Mb	16 rxn	PT1004171
			96 rxn	PT1004172

Gene List:

641 Tumor-Related Genes											
ABCB1	ABCC3	ABL1	ABL2	ACVR1	ACVR1B	AGO2	AKT1	AKT2	AKT3	ALK	ALOX12B
AMER1	ANKRD11	APC	APEX1	AR	ARAF	ARFRP1	ARID1A	ARID1B	ARID2	ARID5B	ASNS
ASXL1	ASXL2	ATIC	ATM	ATR	ATRX	AURKA	AURKB	AXIN1	AXIN2	AXL	B2M
BABAM1	BAP1	BARD1	BBC3	BCL10	BCL2	BCL2L1	BCL2L11	BCL2L2	BCL6	BCOR	BCORL1
BCR	BIRC3	BIRC7	BLM	BMPR1A	BRAF	BRCA1	BRCA2	BRD4	BRIP1	BTG1	BTG2
BTK	C11orf30	C8orf34	CALR	CARD11	CARM1	CASP7	CASP8	CBFB	CBL	CBR3	CCND1
CCND2	CCND3	CCNE1	CD22	CD274	CD276	CD3EAP	CD44	CD70	CD79A	CD79B	CDA
CDC42	CDC73	CDH1	CDK12	CDK4	CDK6	CDK8	CDKN1A	CDKN1B	CDKN2A	CDKN2B	CDKN2C
CEBPA	CENPA	CHD2	CHD4	CHEK1	CHEK2	CIC	CREBBP	CRKL	CRLF2	CSDE1	CSF1R
CSF3R	CTCF	CTLA4	CTNNA1	CTNNB1	CTTN	CUL3	CUL4A	CXCR4	CYLD	CYP17A1	CYP19A1
CYP1B1	CYP2C8	CYP2D6	CYP4B1	CYSLTR2	DAXX	DCUN1D1	DDR1	DDR2	DDX43	DICER1	DIS3
DNAJB1	DNMT1	DNMT3A	DNMT3B	DOT1L	DPYD	DROSHA	DUSP4	DYNC2H1	E2F3	EED	EGFL7
EGFR	EIF1AX	EIF4A2	EIF4E	ELF3	EP300	EPAS1	EPCAM	EPHA2	EPHA3	EPHA5	EPHA7
EPHB1	EPHB4	ERBB2	ERBB3	ERBB4	ERCC1	ERCC2	ERCC3	ERCC4	ERCC5	ERF	ERG
ERRF1	ESR1	ESR2	ETV1	ETV6	EWSR1	EXT1	EZH1	EZH2	FADD	FAM175A	FAM46C
FANCA	FANCB	FANCC	FANCD2	FANCE	FANCF	FANGC	FANCL	FANCM	FAS	FAT1	FAT3
FBXW7	FCGR2A	FCGR3A	FGF10	FGF12	FGF14	FGF19	FGF23	FGF3	FGF4	FGF6	FGFR1
FGFR2	FGFR3	FGFR4	FH	FLCN	FLT1	FLT3	FLT4	FOXA1	FOXL2	FOXO1	FOXP1
FRS2	FSHR	FUBP1	FYN	GAB2	GABRA6	GALNT12	GATA1	GATA2	GATA3	GATA4	GATA6
GGH	GID4	GLI1	GNA11	GNA13	GNAQ	GNAS	GPR124	GPS2	GREM1	GRIN2A	GRM3
GSK3B	GSTA1	GSTM1	GSTP1	H3F3A	H3F3B	H3F3C	HAS3	HDAC1	HDAC6	HGF	HIST1H1C
HIST1H2BD	HIST1H3A	HIST1H3B	HIST1H3C	HIST1H3D	HIST1H3E	HIST1H3F	HIST1H3G	HIST1H3H	HIST1H3I	HIST1H3J	HIST2H3C
HIST2H3D	HIST3H3	HLA-A	HLA-B	HMMR	HNF1A	HOXB13	HRAS	HSD3B1	HSP90AA1	HSPB1	ICOSLG
ID3	IDH1	IDH2	IFNGR1	IGF1	IGF1R	IGF2	IKBKE	IKZF1	IL10	IL1A	IL4
IL7R	IL8	INHA	INHBA	INPP4A	INPP4B	INPPL1	INSR	IRF2	IRF4	IRS1	IRS2
JAK1	JAK2	JAK3	JUN	KAT6A	KDM3B	KDM5A	KDM5C	KDM6A	KDR	KEAP1	KEL
KIT	KLF4	KLHL6	KMT2A	KMT2B	KMT2C	KMT2D	KNSTRN	KRAS	LATS1	LATS2	LIG4
LIMK1	LIN28B	LMO1	LRP1B	LTK	LYN	LZTR1	MAF	MAGI2	MALT1	MAP2K1	MAP2K2
MAP2K4	MAP3K1	MAP3K13	MAP3K14	MAPK1	MAPK3	MAPKAP1	MAX	MCL1	MDC1	MDM2	MDM4
MECOM	MED12	MEF2B	MEN1	MERTK	MET	MGA	MGMT	MITF	MKNK1	MLH1	MLH3
MPL	MRE11A	MSH2	MSH3	MSH6	MSI1	MSI2	MST1	MST1R	MTAP	MTHFR	MTOR
MTRR	MUTYH	MXI1	MYC	MYCL	MYCN	MYD88	MYO3B	MYO1D	NBN	NCOA3	NCOR1
NRG1	NEGR1	NEIL1	NF1	NF2	NFE2L2	NFKBIA	NKX2-1	NKX3-1	NOS2	NOTCH1	NOTCH2
NOTCH3	NOTCH4	NPM1	NQO1	NQO2	NRAS	NSD1	NTSC2	NTHL1	NTRK1	NTRK2	NTRK3
NUF2	NUP93	OPRM1	P2RY8	PAK1	PAK3	PAK7	PALB2	PARK2	PARP1	PARP2	PARP3
PAX5	PBRM1	PDCD1	PDCD1LG2	PDGFRA	PDGFRB	PDK1	PDPK1	PGR	PHB	PHOX2B	PIK3C2B
PIK3C2G	PIK3C3	PIK3CA	PIK3CB	PIK3CD	PIK3CG	PIK3R1	PIK3R2	PIK3R3	PIM1	PLAT	PLCG2
PLK2	PMAIP1	PMS1	PMS2	PNRC1	POLD1	POLE	PON1	PPARG	PPM1D	PPP2R1A	PPP2R2A
PPP4R2	PPP6C	PRDM1	PRDM14	PREX2	PRKAA1	PRKAR1A	PRKCI	PRKQ1	PRKDC	PRSS8	PTCH1
PTEN	PTP4A1	PTPN11	PTPRD	PTPRO	PTPRS	PTPRT	QKI	RAB35	RAC1	RAC2	RAD21
RAD50	RAD51	RAD51B	RAD51C	RAD51D	RAD52	RAD54L	RAF1	RANBP2	RARA	RASA1	RB1
RBM10	RECQL	RECQL4	REL	RET	RFWD2	RHBDF2	RHEB	RHOA	RICTOR	RIT1	RNF43
ROS1	RPS6KA4	RPS6KB2	RPTOR	RRAGC	RRAS	RRAS2	RRM1	RSF1	RTEL1	RUNX1	RUNX1T1
RXRA	RYBP	SDHA	SDHAF2	SDHB	SDHC	SDHD	SEMA3C	SESN1	SESN2	SESN3	SETD2
SETD8	SF3B1	SGK1	SH2B3	SH2D1A	SHOC2	SHQ1	SLCO1B1	SLCO1B3	SLIT1	SLIT2	SLX4
SMAD2	SMAD3	SMAD4	SMARCA4	SMARCB1	SMARCD1	SMO	SMYD3	SNCAIP	SOCS1	SOD2	SOS1
SOX10	SOX17	SOX2	SOX4	SOX9	SPEN	SPOP	SPRED1	SPTA1	SRC	SRSF2	STAG2
STAT3	STAT4	STAT5A	STAT5B	STK11	STK19	STK40	SUFU	SUZ12	SYK	TAF1	TAP1

641 Tumor-Related Genes											
TAP2	TBX3	TCEB1	TCF3	TCF7L2	TDG	TEK	TET1	TET2	TGFB1	TGFB1	TGFB2
TIPARP	TLR2	TMEM127	TMPS52	TERC	TERT	TNF	TNFAIP3	TNFRSF14	TNFSF11	TOP1	TOP2A
TP53	TP53BP1	TP63	TRAF2	TRAF7	TRRAP	TSC1	TSC2	TSHR	TSHZ2	TSHZ3	TTF1
TXN	TXNRD2	TYMS	TYRO3	U2AF1	UGT1A1	UGT1A4	UMPS	UPF1	VEGFA	VHL	VTCN1
WHSC1	WHSC1L1	WISP3	WTT	WWTR1	XIAP	XPC	XPO1	XRCC1	XRCC2	XRCC3	YAP1
YES1	ZBTB2	ZFH3	ZNF217	ZNF703							

38 Fusion Genes											
NOTCH2	NTRK1	ALK	MSH2	RAF1	ETV5	FGFR3	SLC34A2	PDGFRA	KIT	CD74	ROS1
MYB	EZR	EGFR	BRAF	FGFR1	MYC	NTRK2	RET	FGFR2	KMT2A	ETV6	BRCA2
NUTM1	RARA	BRCA1	ETV4	SDC4	TMPS52	BCR	EWSR1	BCL2	RSPO2	MET	ETV1
PPARY	TERT										

15 Microsatellite Loci											
BAT40	Mono-27	BAT26	D2S123	NR24	BAT25	D5S346	D8S554	Penta C	NR27	NR21	D17S250
D18S69	D18S64	Penta D									

TargetSeq® NCC Panel

TargetSeq® NCC Panel includes 113 tumor-related genes suggested by National Cancer Center, Japan, providing reference for tumor diagnosis, targeted therapy, and risk prediction of hereditary tumors.

Recommended sequencing depth / data size: 2,000X / 5 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® NCC Panel	T074V1	944.1 kb	16 rxn	PT1000191
			96 rxn	PT1000192

Gene List:

113 Tumor-Related Genes											
ABL1	AKT1	AKT2	AKT3	ALK	APC	ARID1A	ARID2	ATM	AXIN1	BAP1	BARD1
BCL2L1	BRAF	BRCA1	BRCA2	CCND1	CDK4	CDKN2A	CHEK2	CREBBP	CTNBN1	CUL3	DDR2
EGFR	ENO1	EP300	ERBB2	ERBB3	ERBB4	EZH2	FBXW7	FGFR1	FGFR2	FGFR3	FGFR4
FLT3	HRAS	IDH1	IDH2	IGF1R	IGF2	IL7R	JAK1	JAK2	JAK3	KEAP1	KIT
KRAS	MAP2K1	MAP2K4	MAP3K1	MAP3K4	MDM2	MET	MTOR	MYC	MYCN	NF1	NFE2L2
NOTCH1	NOTCH2	NOTCH3	NRAS	NRG1	NT5C2	PALB2	PBRM1	PDGFRA	PDGFRB	PIK3CA	PIK3R1
PTCH1	PTEN	RAC1	RAC2	RAD51C	RAF1	RB1	RET	ROS1	SETD2	SMAD4	SMARCA4
SMO	STAT3	STK11	TP53	TSC1	VHL	AGTRAP	c2orf44	CCDC6	CD74	CIT	EML4
EPB41	ESRP1	EZR	FN1	GOPC	KIAA1549	KIF5B	KLC1	MAGI3	SDC4	SEC16A	SLC34A2
SLC45A3	TACC3	TPM3	TPM4	VCL							

TargetSeq® Hema Tumor Fusion RNA Panel

TargetSeq® Hema Tumor Fusion RNA Panel is designed based on 141 common fusion gene transcripts such as *KMT2A*, *RARA*, *NUP98*, etc. in hematological tumors for guiding diagnosis, prognosis and recurrence monitoring of hematologic diseases.

Recommended sequencing data size: 3 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® Hema Tumor Fusion RNA Panel	T508V1RNA	851.2 kb	16 rxn	PT1006641
			96 rxn	PT1006642

Gene List:

141 Fusion Genes											
ABL1	ABL2	AFDN	AFF1	ALK	AP2A2	ARID1B	ATF7IP	BCL11A	BCL2	BCL6	BCL9
BCOR	BCR	BCS1L	BIRC3	BMP2K	CALM2	CBFA2T3	CBFB	CDK5RAP2	CD28	CHD6	CPSF6
CREBBP	CRLF2	CSF1R	CTLA4	DAZAP1	DEK	EBF1	ELL	EP300	EPOR	EP515	ERG
ETV6	EWSR1	FGFR1	FIP1L1	FOXJ2	FOXO4	FUS	GLIS2	GTF2I	HLF	HNRNPUL1	HOXA11
HOXA13	HOXA9	HOXC11	HOXD13	HRASLS5	IKZF1	IL2RB	IQGAP2	IRF2BP2	ITK	JAK2	KDM5A
KDM6A	KIF5B	KMT2A	KMT6A	LMBRD1	MBTD1	MECOM	MEF2D	MLF1	MLL1	MLL10	MLL11
MLL3	MLL6	MNX1	MRTFA	MYB	MYC	MYH11	MYH9	NABP1	NCOA3	NID2	NPM1
NSD1	NTRK3	NUMA1	NUP214	NUP98	P2RY8	PAX5	PBX1	PDGFRA	PDGFRB	PHF21B	PMEL
PML	PPFIBP1	PRDM16	PRDX1	PRKAR1A	PRRX1	PTK2B	RANBP2	RARA	RARG	RBM15	RCSD1
RPL22	RPN1	RUNX1	RUNX1T1	SEPTIN6	SET	SNX2	SS18	SSBP2	STAG2	STAT3	STAT5B
STIL	STRN	STRN3	SYK	SYNRG	TAF15	TAL1	TBL1XR1	TCF3	TERF2	TNIP1	TPR
TRIM24	TSLP	TYK2	ZBTB16	ZC3HAV1	ZEB2	ZMIZ1	ZMYND11	ZNF384			

BisCap® Human CpG Island Panel

BisCap® Human CpG Island Panel is designed based on BisCap® methyl hybridization capture sequencing technology with target size of 21.2 Mb covering 27,000 CpG islands and 13 known clinical methylation markers. This panel could be used for methylation marker screening, early-cancer screening and detection, MRD, etc.

Recommended sequencing depth / data size: 100X / 10 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
BisCap® Human CpG Island Panel	TB018V1hg38	21.2 Mb	16 rxn	PB3000231
			96 rxn	PB3000232

Gene List:

13 Methylation Marker Genes											
<i>GSTP1</i>	<i>SHOX2</i>	<i>ONECUT2</i>	<i>BMP3</i>	<i>APC</i>	<i>IKZF1</i>	<i>RASSF1</i>	<i>OTX1</i>	<i>BCAT1</i>	<i>SEPT9</i>	<i>TWIST1</i>	<i>MGMT</i>
<i>NDRG4</i>											

TargetSeq® NSCLC Panel V2

TargetSeq® NSCLC Panel V2 includes 23 NSCLC related genes suggested by NCCN Guidance, where it covers 23 genes of whole exons, hotspot regions of fusions genes such as *BRAF*, *ALK*, *RET*, *ROS1*, and *Met* 14 exon skipping. It could provide reference for clinical treatment decision.

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® NSCLC Panel V2	T891V1	170.1 kb	16 rxn	PT1011351
			96 rxn	PT1011352

23 Tumor-Related Genes											
<i>ALK*</i>	<i>BRAF*</i>	<i>CDKN2A</i>	<i>EGFR*</i>	<i>ERBB2</i>	<i>KRAS</i>	<i>MAP2K1</i>	<i>MET*</i>	<i>NRAS</i>	<i>PIK3CA</i>	<i>RET*</i>	<i>ROS1*</i>
<i>TP53</i>	<i>NTRK1*</i>	<i>NTRK2*</i>	<i>NTRK3</i>	<i>NF1</i>	<i>STK11</i>	<i>PTEN</i>	<i>FGFR1*</i>	<i>FGFR2*</i>	<i>FGFR3*</i>	<i>NRG1</i>	

* Fusion hotspot regions covered

MultipSeq® BRCA1/2 Research Assay V2 (for Illumina)

MultipSeq® BRCA1/2 Research Assay V2 (for Illumina) covers exons and significant introns in ClinVar of *BRCA1/2* genes for the detection of SNV and InDel, which is applicable for diagnosis, screening and risk prediction of hereditary breast cancer, ovarian cancer and others.

Recommended sequencing depth / data size: 2,000X / 0.15 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
MultipSeq® BRCA1/2 Research Assay V2 (for Illumina)	A216V2	20.2 kb	16 rxn	M62231
			96 rxn	M62232

TargetSeq® HRD Panel

TargetSeq® HRD Panel is developed based on the genetic background and efficacy data of Chinese population, which effectively covers about 37,000 SNP sites in the entire genome. The panel calculates genomic instability index (LOH, TAI and LST) scores through the self-developed algorithm of iGeneTech to determine the HRD status of patients, and screens people who may benefit from platinum/PARP inhibitor drugs.

Recommended sequencing depth / data size: 500X / 6 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® HRD Panel	T382V1	3.9 Mb	16 rxn	PT1004581
			96 rxn	PT1004582

TargetSeq® HRR Panel

TargetSeq® HRR Panel covers exons and splicing regions of 39 core genes in homologous recombination repair(HRR) pathway, assisting in determination of the HRD status of tumor patients and screening of patients who may benefit from platinum/PARP inhibitor drugs.

Recommended sequencing depth / data size: 1,000X / 0.5 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® HRR Panel	T420V1	177.9 kb	16 rxn	PT1005061
			96 rxn	PT1005062

Gene List:

39 HRR Genes											
<i>BRCA1</i>	<i>BRCA2</i>	<i>ATM</i>	<i>ATR</i>	<i>BARD1</i>	<i>BLM</i>	<i>BRIP1</i>	<i>CHEK1</i>	<i>CHEK2</i>	<i>FANCA</i>	<i>FANCC</i>	<i>FANCD2</i>
<i>FANCE</i>	<i>FANCF</i>	<i>FANCI</i>	<i>FANCL</i>	<i>FANCM</i>	<i>MRE11</i> (<i>MRE11A</i>)	<i>NBN</i>	<i>PALB2</i>	<i>RAD50</i>	<i>RAD51</i>	<i>RAD51B</i>	<i>RAD51C</i>
<i>RAD51D</i>	<i>RAD52</i>	<i>RAD54L</i>	<i>RPA1</i>	<i>CDK12</i>	<i>EMSY</i>	<i>PTEN</i>	<i>SLX4</i>	<i>XRCC2</i>	<i>PPP2R2A</i> (<i>B55a</i>)	<i>RBBP8</i> (<i>CTIP</i>)	<i>MDCT</i> (<i>NFBD1</i>)
<i>ABRAXA51</i> (<i>FAM175A</i>)	<i>WRN</i>	<i>TP53</i>									

TargetSeq® HRD & HRR Panel v2.0

TargetSeq® HRD & HRR Panel v2.0 combines the detection of HRR genes and HRD status to comprehensively and effectively screens people who may benefit from platinum/PARP inhibitor drugs. This panel can achieve an effective depth ratio of 4:1 between HRR Panel and HRD Panel, which could greatly reduces the sequencing cost of co-examination.

Recommended sequencing depth / data size: 1,200X for HRR and 300X for HRD / 4 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® HRD & HRR Panel v2.0	T430V2	4.1 Mb	16 rxn	PT1010241
			96 rxn	PT1010242

Immunology

TargetSeq® Human HLA Panel

TargetSeq® Human HLA Panel is designed to cover the full-length sequence of *A*, *B* and *C* genes of HLA class I and the whole exon sequence of *DRB1*, *DQB1* and *DPB1* gene of class II. The panel can achieve 6-digit high-resolution accurate typing, which can be applied to transplant matching, immune disease research, drug allergy and other directions.

Recommended sequencing depth / data size: 1,000X / 0.2 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® Human HLA Panel	T216V1	15.6 kb	16 rxn	PT1001831
			96 rxn	PT1001832

TargetSeq® Human MHC Panel

TargetSeq® Human MHC Panel is designed based on the full-length of the genes for human leukocyte antigen (HLA) which includes the traditional HLA region (approximately 3.3 Mb) and its flanking regions (approximately 1.6 Mb). 8 haplotypes (*PGF*, *COX*, *QBL*, *APD*, *DBB*, *MANN*, *MCF*, *SSTO*) are added to achieve high coverage of HLA polymorphism regions. It can be used for the research of immune diseases, oncology research, and can provide reference data for tissue and organ transplantation.

Recommended sequencing data size: 10 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® Human MHC Panel	T231V2	4.9 Mb	16 rxn	PT1002021
			96 rxn	PT1002022

Human Immune Repertoire

MultipSeq® Human Immune Repertoire Products include specific primers designed for V and J genes according to the recent data from IMGT database. CDR3 region of the TCR/BCR is amplified and the immune repertoire level of the sample was assessed at the RNA level.

Recommended sequencing data size: 1 Gb per chain

Product Name	Panel Num	Spec	Cat Num
MultipSeq® Human TCR Research Assay (for Illumina)*	A237V1TCR	16 rxn	M62021
		96 rxn	M62022
MultipSeq® Human TCR Research Assay (for MGI DI)*	A237V2TCR	16 rxn	M62031
		96 rxn	M62032
MultipSeq® Human BCR Research Assay (for Illumina)**	A237V1BCR	16 rxn	M62041
		96 rxn	M62042
MultipSeq® Human BCR Research Assay (for MGI DI)**	A237V2BCR	16 rxn	M62051
		96 rxn	M62052
MultipSeq® Human TCR-β Research Assay (for Illumina)	A237V1TRB	16 rxn	M62061
		96 rxn	M62062
MultipSeq® Human TCR-β Research Assay (for MGI DI)	A237V2TRB	16 rxn	M62071
		96 rxn	M62072

*TCR product includes chain of α, β, γ

**BCR product includes chain of IgH, Igκ, Igλ

Mouse/Rat Immune Repertoire

Mouse/Rat Immune Repertoire Products include specific primers designed for V and J genes according to the recent data from IMGT database of rat/mice. CDR3 region of TCR/BCR is amplified and the rearrangement of V, D, and J genes and immune repertoire complexity level are assessed. For other species with clear V/D/J reference sequences in IMGT database, immune repertoire products for the specific species can be customized.

Recommended sequencing data size: 1 Gb per chain (7 Gb for mouse, 3 Gb for rat)

Product Name	Panel Num	Spec	Cat Num
MultipSeq® Mouse TCR Research Assay (for Illumina)	A282V1TCR	16 rxn	M62131
		96 rxn	M62132
MultipSeq® Mouse TCR Research Assay (for MGI DI)	A282V2TCR	16 rxn	M62141
		96 rxn	M62142
MultipSeq® Mouse BCR Research Assay (for Illumina)	A282V1BCR	16 rxn	M62151
		96 rxn	M62152
MultipSeq® Mouse BCR Research Assay (for MGI DI)	A282V2BCR	16 rxn	M62161
		96 rxn	M62162
MultipSeq® Rat BCR Research Assay (for Illumina)	A281V1BCR	16 rxn	M62171
		96 rxn	M62172
MultipSeq® Rat BCR Research Assay (for MGI DI)	A281V2BCR	16 rxn	M62181
		96 rxn	M62182

Microbiology

TargetSeq® HPV Panel

TargetSeq® HPV Panel covers 201 HPV genotypes and can accurately analyze and distinguish integrated-HPV or free-HPV at one time. The panel could suggest the breakdown and HPV integration site of human DNA sequence, which is of great significance for clinicians to diagnose whether the patient is transient infection or persistent infection, and the development trend of cervical disease.

Recommended sequencing data size: 1 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® HPV Panel	T092XV1	1.4 Mb	16 rxn	PT1000541
			96 rxn	PT1000542

TargetSeq® HBV Panel

TargetSeq® HBV Panel covers the full length of 5500 HBV genome sequences of 8 subtypes and is designed for HBV typing, HBV mutation detection and HBV-host genomic integration site analysis. It is suitable for HBV-related cancer research such as the prognostic monitoring of patients with liver cancer.

Recommended sequencing data size: 1 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® HBV Panel	T037V2	17.6 Mb	16 rxn	PT1000031
			96 rxn	PT1000032

TargetSeq® EBV Panel

TargetSeq® EBV Panel covers 306 full-length genome sequences and is designed for EBV typing, EBV mutation detection and EBV-host genomic integration site analysis. It is suitable for EBV-related cancer research including nasopharyngeal carcinoma, lymphoma and stomach cancer.

Recommended sequencing data size: 1 Gb

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® EBV Panel	T392XV1	52.4 Mb	16 rxn	PT1004681
			96 rxn	PT1004682

TargetSeq® SARS-CoV-2 Panel

TargetSeq® SARS-CoV-2 Panel is designed based on more than 10,000 novel corona-virus genome sequences in the database. By analyzing the sequencing data of samples from throat swabs, respiratory lavage fluid, and serum, the virus sequences could be obtained rapidly.

Product Name	Panel Num	Target Size	Spec	Cat Num
TargetSeq® SARS-Cov-2 Panel	T363XV2	510.1 Mb	16 rxn	PT1004161
			96 rxn	PT1004162

MultipSeq® SARS-CoV-2 Research Assay V2 (for Illumina/MGI)

MultipSeq® SARS-CoV-2 Research Assay V2 (for Illumina/MGI) includes 267 pairs of primers specific to more than 10,000 novel corona-virus genome sequences in the database. The panel can achieve virus identification and mutation detection for various common strains and could be upgraded according to the full-length sequence of the new corona-virus worldwide.

Product Name	Panel Num	Target Size	Spec	Cat Num
MultipSeq® SARS-CoV-2 Research Assay V2 (for Illumina)	A186XV8	29.8 kb	16 rxn	M62211
			96 rxn	M62212
MultipSeq® SARS-CoV-2 Research Assay V2 (for MGI DI)	A186XV9		16 rxn	M62221
			96 rxn	M62222

IGT® Library Prep Kits

DNA Library Prep Kits

IGT® Enzyme Plus Library Prep Kit V3 is a DNA library preparation kit based on enzymatic fragmentation for gDNA, FFPE gDNA samples. This kit integrates DNA fragmentation, end-repair and A-tailing in one step, allowing more gentle enzymatic reaction and controllable operation. This Kit could be used for library preparation for Illumina/MGI platforms with corresponding adapters.

IGT® Fast Library Prep Kit v2.0 is a double-stranded DNA library preparation kit for cfDNA and FFPE gDNA samples. The kit is based on T-A ligation principle with increased ligation rate, and could achieve detection of low-frequency mutations of cfDNA together with UMI technology.

IGT® ssDNA Library Prep Kit is a single-stranded DNA library preparation kit for cfDNA and FFPE gDNA samples. The kit allows adapter ligation to single strand DNA to increase utilization rate for raw materials as well as the library complexity, which has significant advantages in methyl library construction process.

IGT® Tagment DNA Library Prep Kit is a tagment DNA library preparation kit for Illumina platform, where the kit could use 50 ng DNA as input and finish library construction within 1.5 hours. It is applicable to the screening of molecular markers for large number of plants & animals.

IGT® Long-Read Tagment DNA Library Prep Kit is a tagment DNA library preparation kit for third-generation whole genome or target region sequencing, where the kit could use 1 µg DNA as input and finish library construction within 4 hours with optimized reaction system.

Product Name	Spec	Cat Num
IGT® Enzyme Plus Library Prep Kit V3	16 rxn	C11111
	96 rxn	C11112
	960 rxn	C11113
IGT® Enzyme Plus Library Prep Kit V3 Eco	16 rxn	C11121
	96 rxn	C11122
	960 rxn	C11123
IGT® Fast Library Prep Kit v2.0	16 rxn	C10021
	96 rxn	C10022
IGT® ssDNA Library Prep Kit*	16 rxn	C10911
	96 rxn	C10912
IGT® Tagment DNA Library Prep Kit*	96 rxn	C10922
	960 rxn	C10923
IGT® Long-Read Tagment DNA Library Prep Kit*	16 rxn	C10931

* Require working with library-specific adapter kits and blocking oligos

RNA Library Prep Kits

IGT® Fast Stranded RNA Library Prep Kit v2.0 is for RNA strand-specific library preparation for Illumina/MGI platform. It could be used together with hybridization capture kits for RNA capture sequencing.

Product Name	Spec	Cat Num
IGT® Fast Stranded RNA Library Prep Kit v2.0	16 rxn	C10031
	96 rxn	C10032

Methyl Library Prep Kits

IGT® Methyl Fast Library Prep Kit v2.0 is a methyl library preparation kit based on T-A ligation principle. Methyl library for Illumina/MGI platforms could be obtained by methyl adapter ligation, bisulfite treatment and amplification.

Product Name	Spec	Cat Num
IGT® Methyl Fast Library Prep Kit v2.0	16 rxn	B30011
	96 rxn	B30012

* Require working with library-specific adapter kits and blocking oligos

Adapter & UDI Primer

IGT® Adapter & UDI Primer offers 384 types of UDI sequence available for high-throughput multiplex sequencing in one lane. Adapter with UMI technology available.

Product Name	Spec	Cat Num
IGT® Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for Illumina, plate)	96*1 rxn	C10042/C10052/ C10062/C10072
IGT® Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for MGI, plate)	96*1 rxn	C10182/C10192/ C10202/C10212
IGT® UMI Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for Illumina, plate)	96*1 rxn	C10092/C10102/ C10112/C10122
IGT® UMI Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for MGI, plate)	96*1 rxn	C10232/C10242/ C10252/C10262

* Available in smaller package with UDI 1-16.

Primer for Illumina NXT

IGT® Dual-Indexed Primer (for Illumina NXT) is applicable to NXT library with dual-indexed primer sequenced on Illumina platform with different kit size available. IGT® UDI Primer (for Long-Read NXT Library) is for NXT library with UDI primer sequenced on third-generation platform.

Product Name	Spec	Cat Num
IGT® Dual-Indexed Primer 1-8*1-12 (20 µM, for Illumina NXT, tube)	8*12 rxn	C10962
IGT® Dual-Indexed Primer 1-96*1-12 (20 µM, for Illumina NXT, plate)	96*10 rxn	C10973
IGT® UDI Primer 1-16 (20 µM each, for Long-Read NXT Library, tube)	16*1 rxn	C11001

ssDNA Adapter & UDI Primer

IGT® ssDNA Adapter & UDI Primer is applicable to ssDNA library and only for illumina platform currently.

Product Name	Spec	Cat Num
IGT® ssDNA Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for Illumina, plate)	96*1 rxn	C10872/C10882/ C10892/C10902

* Available in smaller package with UDI 1-16.

Methyl Adapter & UDI Primer

IGT® Methyl Adapter & Primer offers 384 types of UDI sequence available for high-throughput multiplexed methyl library sequencing in one lane.

Product Name	Spec	Cat Num
IGT® Methyl Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for Illumina, plate)	96*1 rxn	B30022/B30032/ B30042/B30052
IGT® Methyl Adapter & UDI Primer 1-96/97-192/193-288/289-384 (for MGI, plate)	96*1 rxn	B30172/B30182/ B30192/B30202

* Available in smaller package with UDI 1-16.

Magnetic Beads for Purification

IGT® Pure Beads is applicable to sample and library purification, fragment size selection, etc. with stable performance and high nuclei acid recovery efficiency.

Product Name	Spec	Cat Num
IGT® Pure Beads	20 mL	C80661
	100 mL	C80662

TargetSeq® Hybridization Capture Kits

TargetSeq One® Hyb & Wash Kits

TargetSeq One® Hyb & Wash Kit v2.0 is applicable to TargetSeq One® hybridization capture workflow v2.0 for pre-designed and customized TargetSeq® Target Probes. The kit could compatible with RNA/DNA probes from other manufacturers to stably generate high quality data.

Product Name	Spec	Cat Num
TargetSeq One® Hyb & Wash Kit v2.0 (for Illumina)	16 rxn	C10331
	96 rxn	C10332
TargetSeq One® Hyb & Wash Kit v2.0 (for MGI SI)	16 rxn	C10341
	96 rxn	C10342
TargetSeq One® Hyb & Wash Kit v2.0 (for MGI DI)	16 rxn	C10351
	96 rxn	C10352

BisCap® Methyl Hyb & Wash Kits

TargetSeq One® BisCap® Hyb & Wash Kit is applicable to TargetSeq One® BisCap® methyl hybridization capture workflow for pre-designed and customized BisCap® Target Probes.

Product Name	Spec	Cat Num
TargetSeq One® BisCap® Hyb & Wash Kit (for Illumina)	16 rxn	B30121
	96 rxn	B30122
TargetSeq One® BisCap® Hyb & Wash Kit (for MGI SI)	16 rxn	B30131
	96 rxn	B30132
TargetSeq One® BisCap® Hyb & Wash Kit (for MGI DI)	16 rxn	B30141
	96 rxn	B30142

Magnetic Beads for Capture

TargetSeq® Cap Beads & Nuclease-Free Water is applicable to TargetSeq One® hybridization capture workflow for capture of libraries with target regions.

Product Name	Spec	Cat Num
TargetSeq® Cap Beads & Nuclease-Free Water*	1000 µL each	C10421
	5 mL each	C10422
	50 mL each	C10423

* Equal volume of TargetSeq® Cap Beads and Nuclease-Free Water

Universal Blocking Oligo

TargetSeq® Universal Blocking Oligo is applicable to TargetSeq One® v2.0 hybridization capture workflow for binding to adapters to prevent cross-hybridization between adapter sequences and to enhance the performance of capture experiments. iGeneTech offers two types of universal blocking oligo kits, where TargetSeq® Eco Universal Blocking Oligo can block libraries up to 3 µg, and TargetSeq® Universal Blocking Oligo can block up to 6 µg of libraries. Please be noted that there are multiple versions of the universal blocking oligo, which adapt to different library structures and cannot be shared between different types of libraries.

Product Name	Spec	Cat Num
TargetSeq® Eco Universal Blocking Oligo (for Illumina)	16 rxn	C80501
	96 rxn	C80502
TargetSeq® Eco Universal Blocking Oligo (for Illumina NXT)	16 rxn	C80511
	96 rxn	C80512
TargetSeq® Eco Universal Blocking Oligo (for Illumina ssDNA Library)	16 rxn	C80791
	96 rxn	C80792
TargetSeq® Eco Universal Blocking Oligo (for MGI SI)	16 rxn	C80541
	96 rxn	C80542
TargetSeq® Eco Universal Blocking Oligo (for MGI DI)	16 rxn	C80531
	96 rxn	C80532
TargetSeq® Universal Blocking Oligo (for Illumina)	16 rxn	C80491
	96 rxn	C80492
TargetSeq® Universal Blocking Oligo (for MGI DI)	16 rxn	C80521
	96 rxn	C80522

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Universal Kits

TargetSeq® Human rRNA Blocking Oligo is applicable to RNA hybridization capture workflow for the blocking of human ribosome RNA sequence to increase on-target capture efficiency.

Product Name	Spec	Cat Num
TargetSeq® Human rRNA Blocking Oligo*	16 rxn	C80931
	96 rxn	C80932

* Require working with TargetSeq One® Hyb & Wash Kit v2.0, pure beads, cap beads and universal blocking oligos

TargetSeq® Universal Post PCR Primer (25 µM) has phosphorylation modification at 5' end, which support sequencing on Illumina platform and also enable direct circularization for sequencing on MGI platform.

Product Name	Spec	Cat Num
TargetSeq® Universal Post PCR Primer (25 µM)*	96 rxn	C80882

* Require working with TargetSeq One® Hyb & Wash Kit v2.0, pure beads, cap beads and universal blocking oligos. Directly substitute Post PCR Primer (25 µM) in TargetSeq One® Hyb & Wash Kit v2.0 (for Illumina) upon using.

MultipSeq® Multiplex Amplicon Library Prep Kits

MultipSeq® Library Prep Kit

MultipSeq® Library Prep Kit is applicable to MultipSeq® multiplex amplicon sequencing workflow for Illumina and MGI platforms, and it includes different versions which should be matched to specific MultipSeq® Primer Pool.

Product Name	Spec	Cat Num
MultipSeq® Library Prep Kit (200)	16 rxn	M61021
	96 rxn	M61022

MultipSeq® Indexed Primers

MultipSeq® Indexed Primer is unmixed Dual-Indexed adapters and 384 types of CDI or UDI sequence available for high-throughput multiplex library sequencing in one lane on both Illumina and MGI platforms.

Product Name	Spec	Cat Num
IGT® UDI Primer 1-96/97-192/193-288/289-384 (10 µM each, for Illumina TS, plate)*	96*1 rxn	M70222/M70232/ M70242/M70252
MultipSeq® UDI Primer 1-96/97-192/193-288/289-384 (5 µM each, for MGI, plate)*	96*1 rxn	M70132/M70142/ M70152/M70162
MultipSeq® Dual-Indexed Primer 1-96*1-10 (10 µM, for Illumina, tube)	96*10 rxn	M60193
MultipSeq® Dual-Indexed Primer 1-96*1-10 (10 µM, for MGI, tube)	96*10 rxn	M60203

* Available in smaller package with index 1-16.



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