Biomek-Automated NGS Library Construction Methods

DEMONSTRATED METHOD		BIOMEK i7 HYBRID	BIOMEK i7/i5 MULTICHANNEL	BIOMEK i5 SPAN-8	BIOMEK FX^P HYBRID	BIOMEK FX^P/NX^P MULTICHANNEL	BIOMEK NX^P SPAN-8	BIOMEK 4000
CANCER PANELS	Illumina TruSight® Cancer							●
	Illumina TruSight® Tumor 15							●
	Illumina TruSight® Tumor 170			●			●	
	Illumina TruSight Tumor 500						●	
	NEB NEBNext Direct™ Cancer HotSpot Panel	■			■			
	TruSight RNA Pan Cancer	■						
DNA SEQUENCING	ATAC-Seq	■						
	Illumina AmpliSeq for Illumina NGS			●				
	Illumina ForenSeq					■		
	Illumina Nextera® DNA Flex Library Prep Kit	●						
	Illumina Nextera® XT	●			●			
	Illumina TruSeq® Custom Amplicon Low Input Kit				●			
	Illumina TruSeq® DNA PCR-Free	■		■	■			■
	Illumina TruSeq® Nano DNA	■			●		■	■
	NEB NEBNext® Ultra DNA for Illumina NGS (ChIP-seq and HLA)				■			
	NEB NEBNext® Ultra II DNA Kit for Illumina NGS	■			■			
	NEB NEBNext Ultra II FS DNA	■						
	NuGEN Ovation Ultralow Library System v2				▲			
	NuGEN Ovation Rapid Library System (PCR-Free)				▲			
	Roche KAPA™ HyperPrep Library Prep Kit for Illumina NGS	■▲	■▲		▲			
	Roche KAPA HyperPlus Library Prep Kit for Illumina NGS	■▲	■▲		▲			
	Swift Biosciences Accel - NGS® 2S Plus DNA Library Kit for Illumina NGS				■			
	Takara SMARTer™ ThruPLEX® DNA-seq				■			
HLA TYPING	GenDx NGSgo®	■						■
	Illumina TruSight® HLA Sequencing Panel v2						●	
	Immucor MIA FORA Flex HLA	▲	▲		▲		▲	▲
	Omixon Holotype HLA X2							■
RNA SEQUENCING	Illumina AmpliSeq for Illumina NGS			●				
	Illumina TruSeq® RNA v2				■			
	Illumina TruSeq® RNA Exome	■			■			
	Illumina TruSeq® Stranded mRNA	■			●			
	Illumina TruSeq® Stranded Total RNA	■			●			
	Lexogen QuantSeq 3′ mRNA -Seq Library Prep Kit	■						
	NEB NEBNext® Small RNA Kit for Illumina NGS							■
	NEB NEBNext® Ultra II Directional RNA Library Kit for Illumina NGS	■			■			
	NuGEN Ovation Universal RNA-Seq				▲			
	NuGEN Trio RNA-Seq				▲			
	NuGEN Universal Plus mRNA-Seq				▲			
	Roche KAPA™ mRNA HyperPrep Kit				▲			
	Roche KAPA™ RNA HyperPrep Kit with RiboErase (HMR)				▲			
SINGLE-CELL SEQ	NEB NEBNext Single Cell/ Low Input RNA Library Prep Kit	■						
	Takara SmartSeq® HT	■						
TARGET/EXOME CAPTURE	Agilent HaloPlex™ Target Enrichment - Ion Torrent				■		■	■
	Agilent SureSelect XT®	■			■			
	IDT xGen™ Exome Research	■						
	Illumina Nextera DNA Exome Kit				■			
	Illumina Nextera Flex Enrichment				●			
	Illumina Nextera® Rapid Capture				●			●
	Illumina TruSeq® Exome	■			■			
	NuGEN Allegro Targeted Genotyping				▲			
	Roche HyperCap Workflow v2.0	■▲			▲			
	Roche Nimblegen SeqCap EZ® for Illumina NGS				■			

Biomek-Automated Nucleic Acid Sample Preparation Methods

	DEMONSTRATED METHOD	BIOMEK i7 HYBRID	BIOMEK i7/i5 MULTICHANNEL	BIOMEK i5 SPAN-8	BIOMEK FX^P HYBRID	BIOMEK FX^P/NX^P MULTICHANNEL	BIOMEK NX^P SPAN-8	BIOMEK 4000
DNA AND RNA PURIFICATION AND CLEAN UP/ SIZE SELECTION/ QUANTITATION/ NORMALIZATION/ POOLING	Agilent TapeStation 2200 Plate Setup for analysis of DNA Fragments			■				
	Beckman AMPure XP - PCR Purification	■	■		■	■	■	■
	Beckman CleanSEQ - Dye Terminator Removal	■	■		■	■		■
	Beckman RNAClean XP - Post cDNA Purification and Post-IVT cRNA Purification				■	■		■
	Beckman SPRIselect - Size Selection	■		■				■
	COVARIS DNA Shearing Plate Setup for E220 Focused Ultrasonicators			■				
	qPCR/PCR Setup 384				■		■	■
	qPCR/PCR Setup 96				■		■	■
	Quantitation/Normalization			■	■			■
	Roche Kapa™ Biosystems Library Quantification Kit - Illumina (96 and 384)			■	■		■	
	Sample Pooling for Multiplexing				■			
NUCLEIC ACID ISOLATION	Apostle Minimax™ High Efficiency cfDNA Isolation kit - Isolation of cFDA from Plasma	■		■				
	Beckman CosMCPrep – High/Low Copy Plasmid Purification				■	■		
	Beckman DNAdvance - DNA Isolation from Tissue	■	■		■	■		■
	Beckman Formapure XL DNA - DNA Isolation from FFPE Tissue	■	■	■	■			■
	Beckman Formapure XL Total RNA Isolation from FFPE Tissue	■	■					
	Beckman Formapure XL Total -DNA and RNA Isolation from a Single FFPE Tissue Sample	■	■					
	Beckman GenFind v2 - DNA Isolation from Blood	■	■			■	■	
	Beckman GenFind v3 DNA Isolation from Blood, Cells & Serum	■	■	■				
	Beckman RNAdvance Blood - RNA Isolation from Blood	■	■		■		■	
	Beckman RNAdvance Cell - RNA Isolation from Cells		■			■	■	
	Beckman RNAdvance Tissue - RNA Isolation from Tissue	■	■		■	■	■	
	Mo Bio PowerMag Soil DNA Isolation Kit							■

Method Key

■ Demonstrated Method. This indicates that the method was developed for a sample preparation kit following a vendor's published manual protocol. Each one is tested with scientifically relevant samples and has yielded results that meet the kit vendor's specifications either in a customer lab (customer demonstrated) or in a Beckman Coulter Life Sciences Lab (Beckman demonstrated). Beckman Coulter makes no claims or warranties regarding the use or performance of these methods.

● Illumina Qualified Methods, This indicates that Illumina's analysis of libraries prepared with the Biomek-automated method has shown the libraries to perform comparably to those prepared manually. This method is not an Illumina product, and Illumina does not directly support this product. Illumina makes no representations or warranties with respect to this product.

▲ Method created and provided by kit vendor.

Biomek Automated Workstation Stations and methods are not intended or validated for use in the diagnosis of disease or other conditions. In some cases, method data was generated on pre-production automated workstations.

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