XCeloSeq

genefirst

XCeloSeq® Pan Cancer cfDNA Kit

A targeted, comprehensive liquid biopsy NGS panel for coverage of the most relevant cancer mutations

Highlights

ENHANCED LIBRARY COMPLEXITY — All XCeloSeq products use the ATOM-Seq® capture chemistry which is built to be uniquely suited for use with liquid biopsy and FFPE material, delivering unrivalled library complexity

ENHANCED ERROR CORRECTION — XCeloSeq-generated sequencing libraries contain unique molecular identifiers (UMI) and a unique protocol design which combines for enhanced error suppression and sensitivity

STREAMLINED AND FAST WITH HIGHEST SAMPLE RETENTION— XCeloSeq protocols have been designed to be completed within 1 day with the fewest bead purifications and shortest hands on times

Specifications

100	1147	1 ng	5-50 ng
Gene Targets	Targeting Primers[%]	Min Input Quantity[*]	Recommended Input Quantity[*]

17 M	1.5 hours	5.75 hours
Recommended Read Number[#]	Hands On Time	Total Protocol Time

%Targeting primers are split between the sense and antisense DNA strands

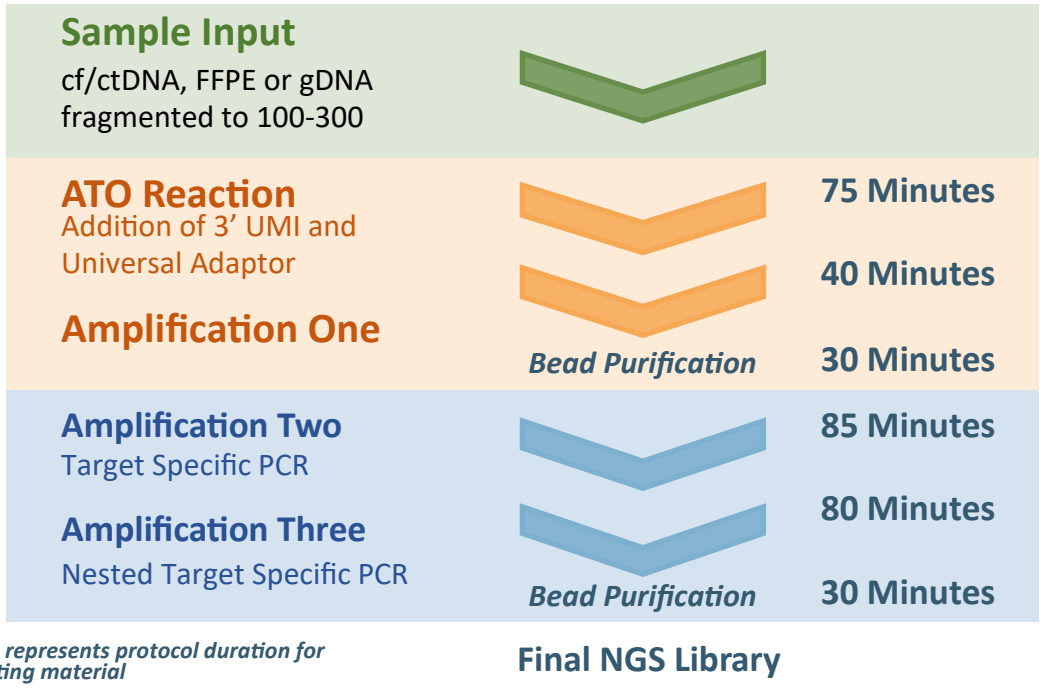
*Higher quantities within this range will improve maximum sensitivity, recommended maximum is 50 ng. The product supports capture with down to 1.0 ng of cfDNA, however this is not recommended as it will lead to reduced sensitivity. Enzymatically fragmented FFPE is also supported as an alternative starting material, when 50 ng should be used.

#Suggested read number for cfDNA samples. Reads should be divided equally between Pool 1 and Pool 2 Libraries. Read numbers can be optimised by users for different uses. For example, for FFPE libraries fewer reads may be sufficient.

XCeloSeq Pan Cancer cfDNA Kit is built upon GeneFirst's patented breakthrough technology, ATOM-Seq.

ATOM-Seq's strengths and versatility avoid the major limitations of both PCR- and ligation-based approaches. This technology is ligation free, simple, efficient, flexible, and streamlined— being perfectly suited to, while offering novel advantages for use on, highly challenging clinical material. These materials include single- and double-stranded cfDNA, FFPE DNA or gDNA, making this kit the practical choice for cancer testing. The technology employed by ATOM-Seq along with unique protocol based enhancements for sensitivity, specificity, and error correction allows for the highest sample retention and capture efficiency with no compromises on sensitivity and performance. The 5.75 hour protocol helps streamline workflows and improves overall efficiency in the laboratory.

Streamlined & Fast Protocol



Times shown represents protocol duration for 10 ng of starting material

Comprehensive coverage of the top mutations across 100 genes

ABL1	BRCA1	CHEK2	ESR1	GNAQ	KEAP1	MSH2	NTRK3	RHOA	SMO
AKT1	BRCA2	CSF1R	EZH2	GNAS	KIT	MSH6	PDGFRA	RIT1	SRC
ALK	CASP8	CTNNB1	FBXW7	HNF1A	KLF5	MTOR	PIK3CA	RNF43	STK11
AMER1	CCND1	DDR2	FGFR1	HRAS	KRAS	MYC	PTCH1	ROS1	TCF7L2
APC	CCND2	DMD	FGFR2	IDH1	MAP2K1	NF1	PTEN	SETD2	TP53*
AR	CCND3	EGFR	FGFR3	IDH2	MAP2K2	NFE2L2	PTPN11	SF3B1	TSC1
ARAF	CDH1	EP300	FGFR4	JAK2	MET	NOTCH1	RAF1	SMAD2	TSC2
ARID1A	CDK4	ERBB2	FLT3	JAK3	MGA	NPM1	RB1	SMAD4	UA2F1
ATM	CDK6	ERBB3	GATA3	KDM6A	MLH1	NRAS	RBM10	SMARCA4	VHL
BRAF	CDKN2A	ERBB4	GNA11	KDR	MPL	NTRK1	RET	SMARCB1	ZFP36L2

*Whole Coding Region Coverage

For research use only. Not for use in diagnostics procedures.

To find out more please contact our team at sales@genefirst.com or call us on +44(0)1865407400

www.genefirst.com