FLUXION

DATA SHEET

Spotlight EGFR™ Liquid Biopsy Panel

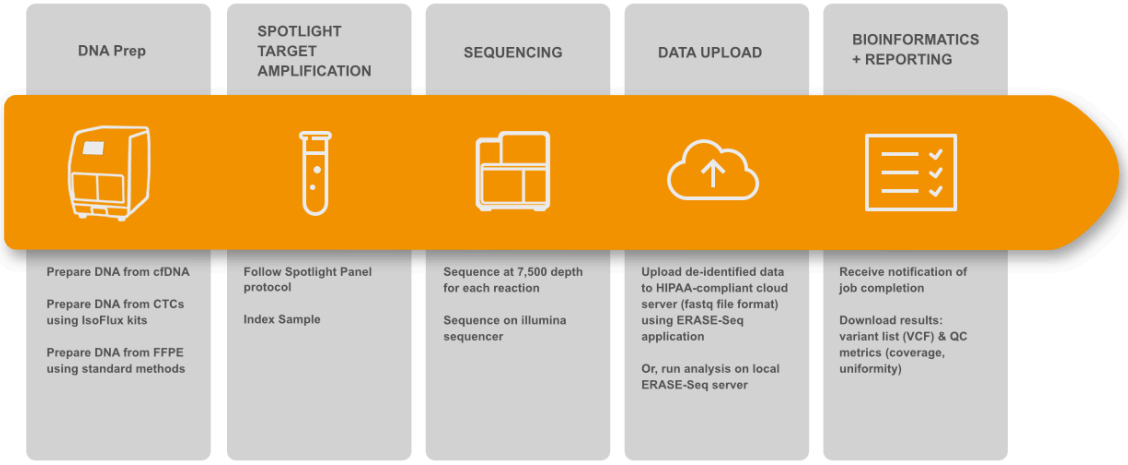
Contiguous coverage of EGFR and hotspot coverage of BRAF, KRAS, and NRAS

The Spotlight EGFR Liquid Biopsy NGS Pathway Panel offers contiguous coverage of EGFR and hotspot coverage of BRAF, KRAS, and NRAS, using a 17-amplicon design to generate multiplex libraries compatible with Illumina sequencing platforms. The Spotlight EGFR Pathway Panel is compatible with short DNA fragments from both cfDNA and FFPE samples. This panel is especially well-suited for research focused on detecting clinically-relevant allele variants in DNA from cell-free DNA (cfDNA) and circulating tumor cells (CTCs). This product is a complete kit that includes all elements necessary for generating ready-to-sequence libraries, including primer pairs and indexed sequencing adapters for Illumina sequencers. Combined with ERASE-Seq, Fluxion's statistically powered variant caller, Spotlight EGFR delivers >90% sensitivity and <0.1 false positives at 0.1% allele frequency.

Features

- >90% sensitivity and <0.1 false positives per sample at 0.05-0.1% allele frequency
- Turnkey solution for library generation in a single kit, including sequencing adapters and sample barcodes
- Ready-to-sequence libraries in just 2 hours
- Starting input quantities as low 20 ng total DNA
- Average amplicon size of 136 bp for compatibility with cfDNA and FFPE
- ERASE-Seq cloud-based variant calling included with kit purchase
- Custom configurations available to target specific variants
- No UMIs (molecular IDs) required; increases sensitivity, reduces bias and assay complexity

Spotlight EGFR is powered by ERASE-Seq, Fluxion's statistically powered variant caller that is available free of charge to Spotlight users. ERASE-Seq utilizes statistical analysis to compare sequencing results to a detailed background model and technical replicates. This approach eliminates both random errors and systemic biases inherent in all sequencing workflows. ERASE-Seq delivers superior detection sensitivity to 0.1% allele frequency and below, with a false positive rate 10-100X lower than leading molecular barcode approaches.



The Spotlight liquid biopsy workflow for ultra-accurate detection of rare variants starts with isolation of DNA from a blood sample. This is followed by targeted amplification and sequencing at 15,000X per sample (7,500X per reaction, 2 reactions). Fluxion's ERASE-Seq bioinformatics solution is accessed via secure upload to a HIPAA-compliant cloud-based server. Statistical comparison to a well-characterized reference background specific to the Spotlight EGFR panel is performed, allowing accurate variant calling to 0.1% allele frequency and below. Variant calls are available for download within 24-48 hours. The analysis service is included for Spotlight customers.

Product Specifications

Feature	Specification
Input DNA Required	20 ng (2-reaction kit)
Starting Sample	cfDNA, CTC, FFPE
Library Prep Time Required	2 hours
Number of Amplicons	17
Amplicon Size	107-155 bp (average 136 bp)
Total Target Size	1.5 kb
On Target Percentage	> 95%
Sensitivity (for base substitutions)	>90% at 0.1-0.2% allele frequency, 2-reaction kit >90% at 0.05-0.1% allele frequency, 4-reaction kit
Specificity	<0.1 false positives per sample
Validated Sequencers	MiSeq, MiniSeq, HiSeq, NextSeq, Iseq, NovaSeq
Average Sequencing Depth	15,000X per sample

Ordering Information

Description	Part Number
24-sample Spotlight EGFR Pathway Panel, including primer pool, library kit, and adapter kit; 0.1% AF sensitivity, 20 ng input, 2 reaction tubes per sample, ERASE-Seq analysis	910-0130

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

FLUXION

Fluxion Biosciences, Inc.
1600 Harbor Bay Pkwy, Alameda, CA 94502 USA
Toll Free (USA): +1 (866) 266-8380 **Phone:** +1 (650) 241-4777
Quotes: sales@fluxionbio.com **Orders:** orders@fluxionbio.com
www.fluxionbio.com

RevC, P/N 634-0096