

Custom mutaFISH™ Service

mutaFISH™ probes designed for your specific DNA and RNA mutations of interest in 4 weeks.

Custom mutaFISH™ service powered by integrated padlock probe and rolling circle amplification (RCA) technology provides highly sensitive mutaFISH™ probes for *in situ*, single cell, single molecule, DNA and RNA mutation detection at single nucleotide resolution.

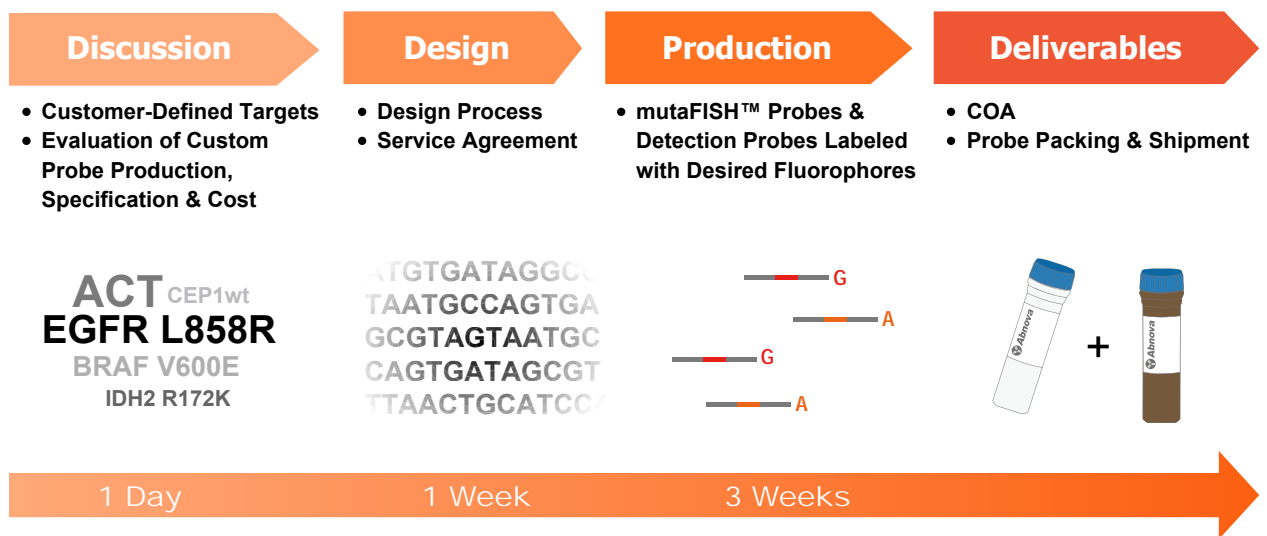
Advantages

- *In Situ* Analysis of DNA & RNA
- Single Cell, Single Molecule Detection
- Single Nucleotide Resolution
- Higher Sensitivity than dPCR & NGS
- Multiplexing Capability
- No DNA or RNA Extraction

Applications

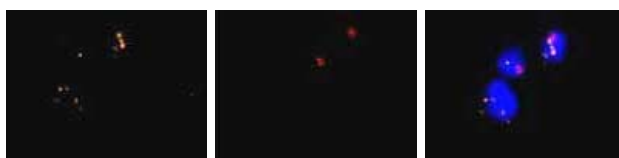
- Cell *In Situ* Hybridization
- Circulating Tumor Cell *In Situ* Hybridization
- Fresh Frozen Tissue *In Situ* Hybridization
- Formalin-Fixed Paraffin-Embedded Tissue *In Situ* Hybridization
- Flow Cytometry Mutation-Based Cell Sorting

General Flow Chart of Custom mutaFISH™ Probe Production



Showcase 1: Point Mutation Detection

- **Application:** point mutation, insertion/deletion, gene edit, CRISPR/Cas9 validation & allele-specific gene expression.
- **Example:** detection of EGFR T790M point mutation on single strand RNA in human H1975 cells.



EGFR T790M (Cyc3) EGFR T790wt (Cyc5) Merge

Showcase 2: Exon Splice Variant Detection

- **Application:** exon splice variant, isoforms & knockout validation.
- **Example:** detection of exon splice variant of AR (AR-V7) on single strand RNA in human CWR22Rv1 cells.



AR-V7 (Cyc3) ARwt (Cyc5) Merge