

Highly sensitive

KRAS Mutation Assay

A hand is shown holding a glowing DNA sequence string. The sequence is "ATGCTAGCTCGATCACAGATCAGTTGACC". The letters are in various colors (blue, red, green) and are arranged in a curved path. The background is a soft, out-of-focus blue and white.

ATGCTAGCTCGATCACAGATCAGTTGACC

Mutector II™
A platform to accurately
analyze multiple mutations

FEATURES

High detection sensitivity

Sequencing-like accuracy

Detects all 12 mutations in codons 12 & 13



KRAS mutations in codons 12 and 13 change the GTP-binding affinity of the KRAS protein. Studies indicate that these mutations are linked to cancer prognosis and chemotherapy resistance.

Mutector™ II KRAS Kit

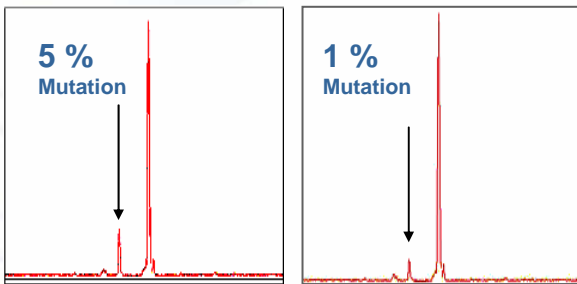
The Mutector™ II KRAS kit is a highly sensitive test designed to accurately identify KRAS mutations in codons 12 and 13.



Codon 12	Codon 13
Gly12Ser (GGT>AGT)	Gly13Ser (GGC>AGC)
Gly12Arg (GGT>CGT)	Gly13Arg (GGC>CGC)
Gly12Cys (GGT>TGT)	Gly13Cys (GGC>TGC)
Gly12Asp (GGT>GAT)	Gly13Asp (GGC>GAC)
Gly12Ala (GGT>GCT)	Gly13Ala (GGC>GCC)
Gly12Val (GGT>GTT)	Gly13Val (GGC>GTC)

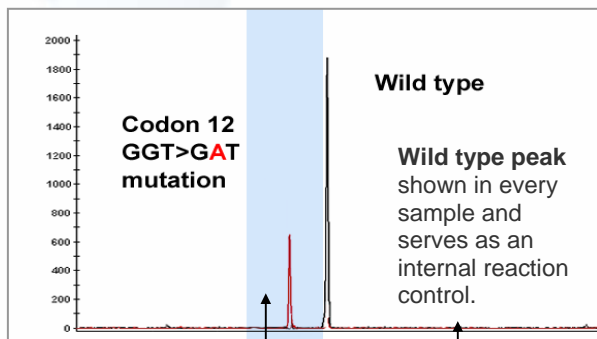
Accurately identify all 12 KRAS mutations in codons 12 and 13

The Mutector™ II KRAS assay detects and differentiates all 12 KRAS mutations in codons 12 and 13. It is the most comprehensive mutation analysis kit available, providing clear and conclusive results.



Enrich the mutation signal 20 times to detect low-level mutations

The Mutector™ II assay uses proprietary STA technology* to enrich the mutation signal up to 20 times. Studies using a combination of wild type and mutant DNA show that the enrichment process enhances sensitivity, enabling the assay to detect mutations as low as 1%.



All mutation peaks appear in this highlighted area

Low background

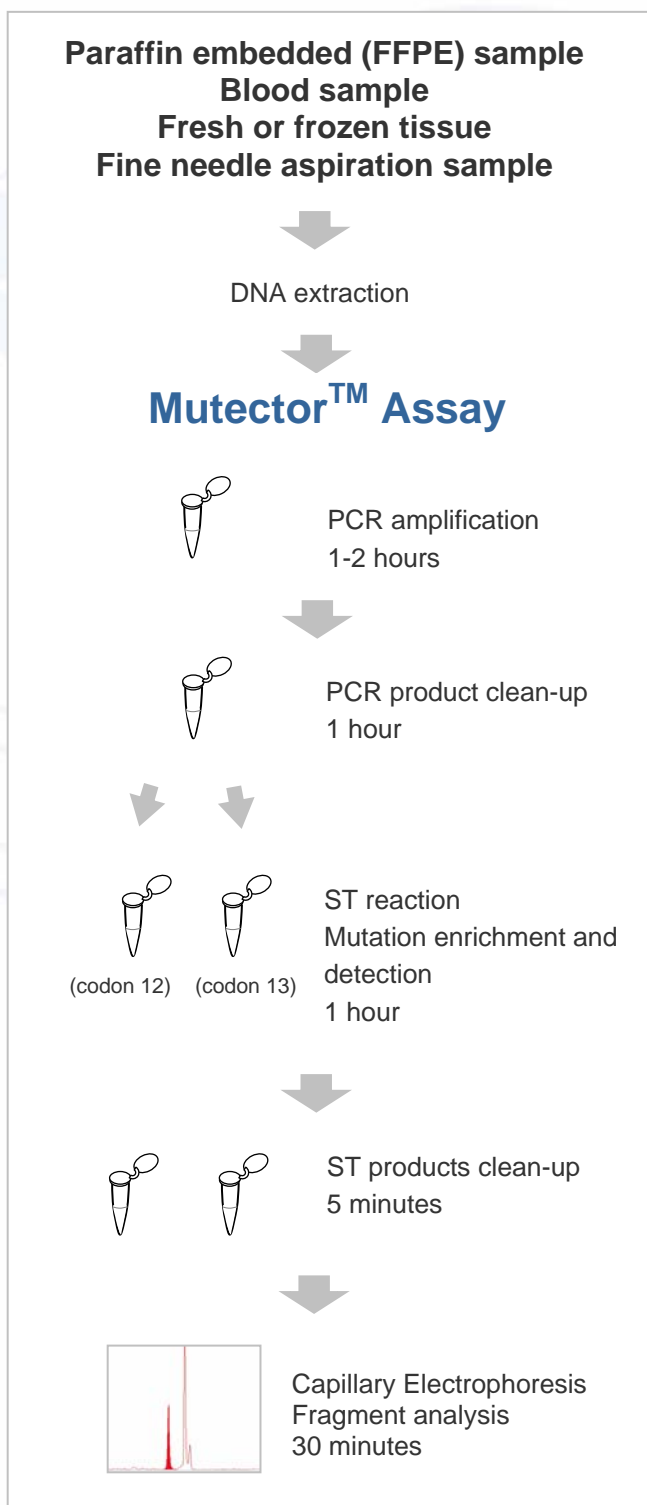
Simple data analysis

When the sample is wild type, only one peak is present. When the sample contains mutant DNA(s), additional peak(s) will be seen in the highlighted area. The mutations can be easily identified by the extra peak(s) with different fragment sizes and color.

* Shifted Termination Assay (STA) technology is proprietary technology performed using specially designed primers, modified enzyme mixture and chemistry. The STA reaction recognizes wild or mutant target sequences and selectively extends detection primers with 1 to 20 nucleotides to generate various lengths of primer extension products. The extended STA products are analyzed with a sequencer using fragment analysis software. The STA technology detects mutations in multiple genes as well as different types of mutations (point mutations, deletions and insertions) in the same sample.

KRAS

TEST INFORMATION



Mutector™ II KRAS assay is a two-tube test.

Tube 1 detects 6 mutations in codon 12.

Tube 2 detects 6 mutations in codon 13.

Mutation Screening Kit (Cat.GP05-C1) is designed as a single color test. The kit detects any mutations in codons 12 and 13 but cannot differentiate the mutation types.

Mutation Differentiation Kit (Cat.GP05-C2) is designed as a multi-color test. All 12 mutations in codons 12 and 13 can be detected and differentiated by the fluorescent colors and fragment sizes.

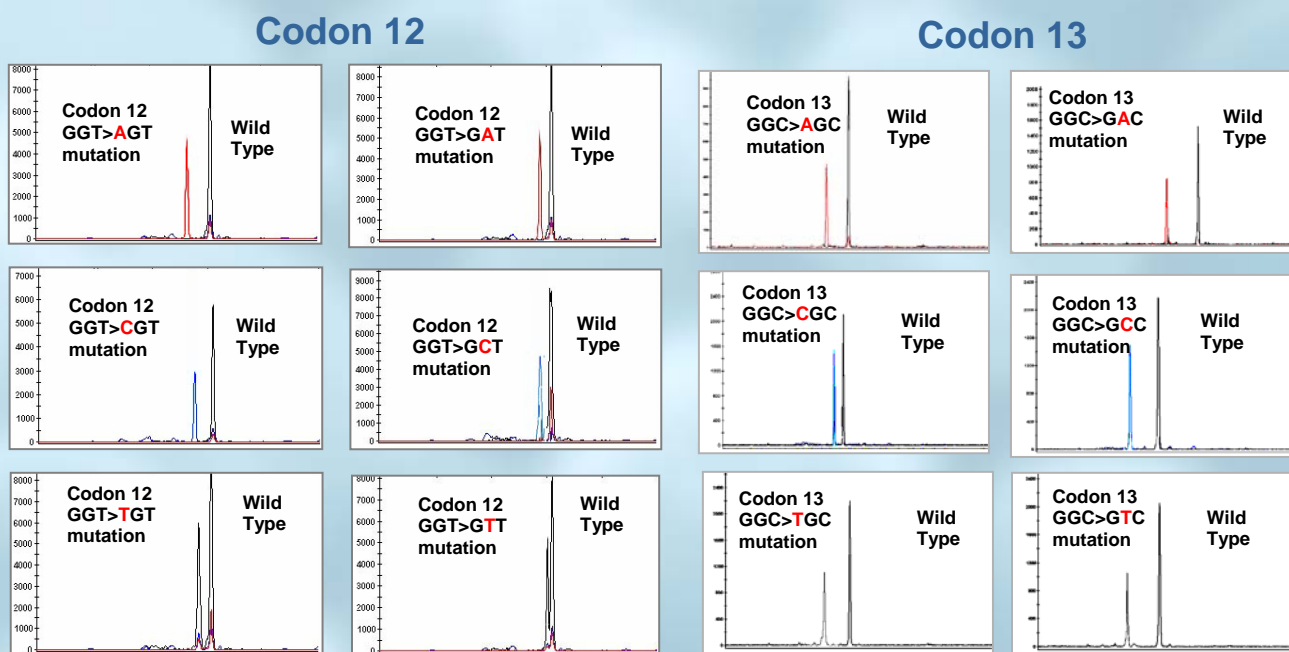
Kit contents

Contains the following reagents to perform 32 reactions:

- 12 KRAS mutation controls
- Master mix for amplification
- PCR primers
- PCR product clean-up reagents
- ST reagents for mutation detection
- Primers for mutation detection
- TF Filters for STA product clean-up
- Sequencer loading buffer
- Fluorescent size markers

TEST RESULTS

Mutector™ II KRAS-C2 kit (Cat. GP05-C2): Mutation Differentiation Kit



KRAS MUTATION DETECTION

ORDER INFORMATION

Name	Cat No.	Size	Description
Mutector™ II KRAS Screening	GP05-C1	32 reactions	Screen 12 KRAS mutations in codons 12 and 13. Kit reagents test up to 30 samples.
Mutector™ II KRAS Differentiation	GP05-C2	32 reactions	Detect and differentiate 12 KRAS mutations in codons 12 and 13. Kit reagents test up to 30 samples.

For Research Use Only. Not for use in diagnostic procedures.

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