

Highly sensitive

KRAS Mutation Assay

ATGGCTAGCTCGATCACAGATCAGTTGACC

A hand is shown holding a glowing DNA sequence. The sequence is written in blue and red letters, with the last few letters 'TTGACC' being larger and more prominent. The background is a soft, blue, cloudy texture.

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. Clinical studies indicate that these mutations are linked to cancer prognosis and chemotherapy resistance.

Mutector™ II KRAS Kit

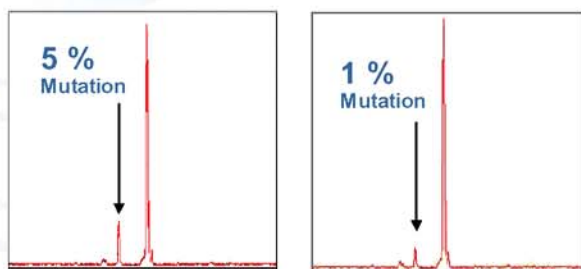
The Mutector™ II KRAS kit is a highly sensitive test designed to accurately identify all 12 KRAS mutations in codons 12 and 13.



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)

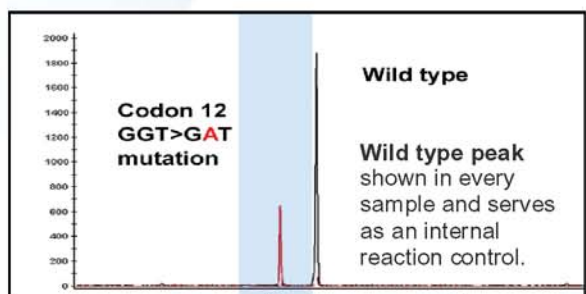
Accurately identify all 12 KRAS mutations in codons 12 and 13

There are 12 mutations that have been identified in codons 12 and 13 of the KRAS gene in colon, lung and other types of cancers. Mutector™ II KRAS assay detects and differentiates all 12 KRAS mutations, providing clear and conclusive results.



Enrich 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 at levels as low as 1%.



All mutation peaks appear in this highlighted area

Low background

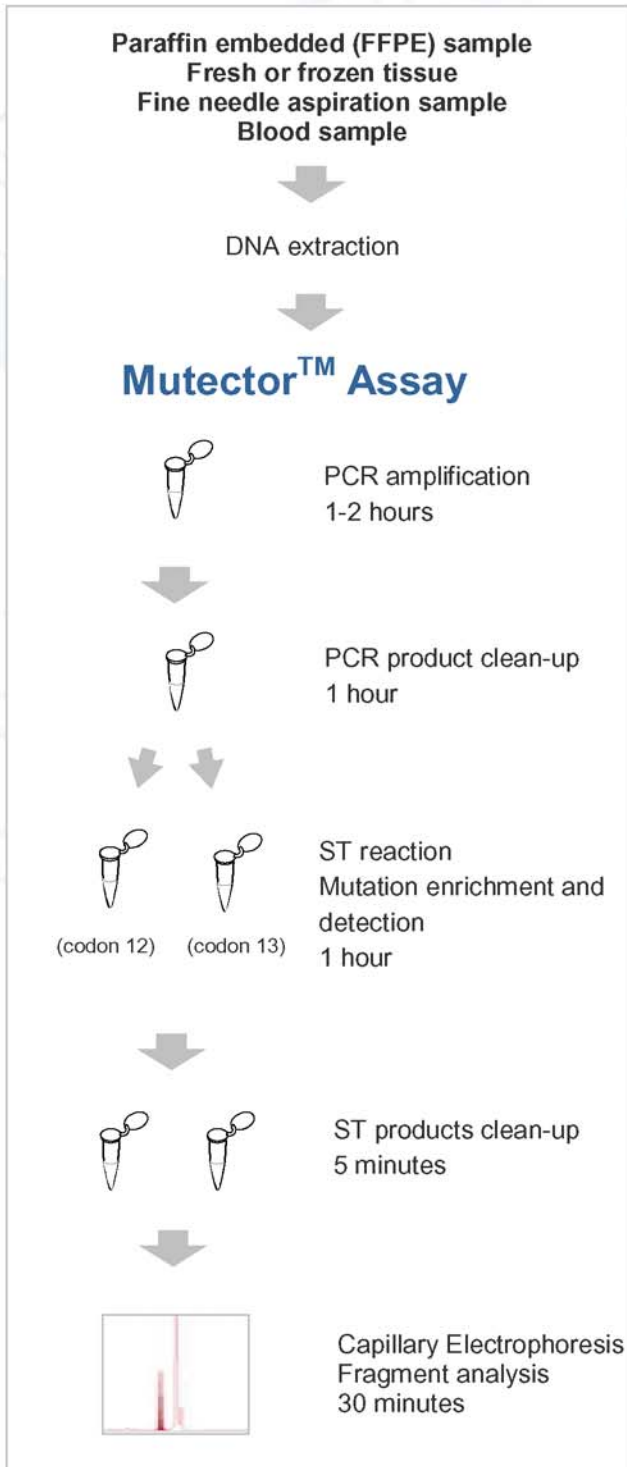
Simple data analysis

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 additional mutation peak(s) can be easily differentiated by fragment size and color.

* Shifted Termination Assay (STA) technology is a proprietary technology 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. 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 distinguishes between mutations in codons 12 and 13, but does not report the individual nucleotide substitution.

Mutation Differentiation Kit (P/N 4452080)

is designed as a multi-color test to indicate the specific nucleotide substitution(s). All 12 mutations in codons 12 and 13 can be detected and differentiated by fluorescent color and fragment size.

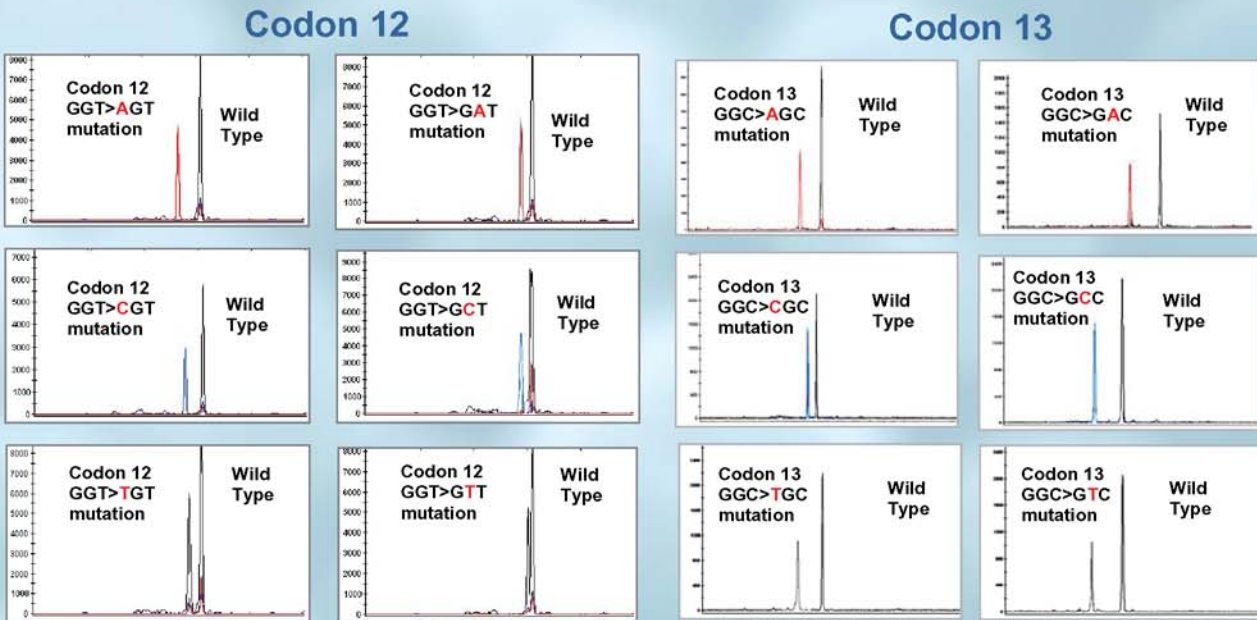
Kit contents

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
- FT-50 Filters for STA product clean-up
- Sequencer loading buffer
- Fluorescent size markers

TEST RESULTS

Mutector™ II KRAS-C2 kit: 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	Applied Biosystems P/N 4452080	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.

888.825.6005
www.TrimGen.com