

Highly sensitive

PIK3CA

MUTECTOR

Mutation Detection Kit



Mutation Assay

MUTATIONS

E542K (G1624A)

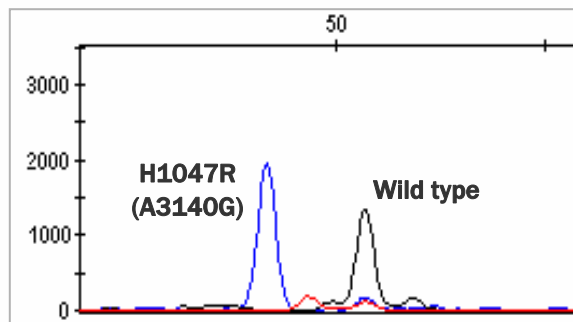
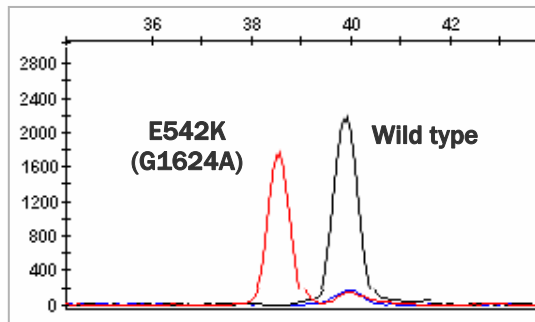
E545K (G1633A)

E545G (A1634C)

H1047R (A3140G)

H1047L (A3140T)

Phosphoinositide-3-kinase (PI3K) plays an important role in the EGFR signaling pathway. The PI3K activates the serine/threonine kinase AKT, which in turn regulates several signaling pathways controlling cell survival, growth and proliferation. The gene, PIK3CA, encoding the catalytic subunit of the enzyme, has been found to mutate frequently in human cancers, such as colon, lung, head and neck, cervical, gastric, and breast cancers. The mutations induce a gain of function that results in constitutive signaling through the PI3K/AKT and mTOR pathways. The PIK3CA mutation is also associated with sensitivity to chemotherapeutic agents.



ASSAY METHOD

Enrich mutation signals by STA*
Mutation detection by fragment analysis

* Shifted Termination Assay

INSTRUMENT

Capillary type sequencer

ASSAY FORMAT

1 - Tube assay per sample

KIT CONTENT

The kit contains reagents to perform 32 assays.

The reagents include

- Mutation controls
- Master mix for amplification
- PCR primers
- Reagents for PCR product clean-up
- ST reagents for mutation detection
- Primers for mutation detection
- TF filters for STA product clean-up
- Loading buffer with size standards

ORDER INFORMATION

Name	Cat No.	Size	Description
Mutector™ II PIK3CA Kit	GP08	32 assays	Identify PIK3CA mutations: E542K (G1624A), E545K (G1633A), E545G (A1634C), H1047R (A3140G), and H1047L (A3140T).

*For research use only, not for use in diagnostic procedures.

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