KRAS MUTATION ANALYSIS

Tellgen

KRAS MUTATION ANALYSIS using Real-Time PCR

Features & Benefits

Detailed mutation genotypes

1 sample 1 reaction

Specimen Requirements

◇Formalin-fixed, paraffin-embedded tissue

◇Fresh tissue samples

◇Frozen biopsy

◇DNA materials

Targeted Mutations

Gene	Mutation	Base Change
KRAS	Gly12Asp	GGT＞GAT
	Gly12Val	GGT＞GTT
	Gly12Ser	GGT＞AGT
	Gly12Cys	GGT＞TGT
	Gly12Ala	GGT＞GCT
	Gly12Arg	GGT＞CGT
	Gly13Asp	GGC＞GAC
	Gly13Cys	GGC＞TGC
BRAF	V600E	T＞A

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KRAS
MUTATION ANALYSIS

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KRAS MUTATION ANALYSIS - by RT-PCR

KRAS has been extensively studied in a wide array of human malignancies, including mCRC and NSCLC, and recent publications demonstrated that KRAS mutation status is a strong predictor of resistance to therapy with tyrosine kinase inhibitors.

Most of the KRAS mutations occur in codon 12 and 13. Codon 12 and 13 mutations are missense mutations, which abolish GTPase activity resulting in constitutively activated RAS signaling. Patients who carry KRAS mutations are unlikely to benefit from the anti-EGFR treatments because their tumors express a protein that signals cell proliferation without the activation of EGFR. KRAS codon 12 & 13 mutations have been found in patients with colorectal, ovarian, pancreatic and non-small cell lung cancers.

Tellgen's KRAS mutation detection kit can accurately identify 7 key mutations occurring in codons 12 and 13 by RT-PCR. The results of the KRAS Kit are intended to aid the clinician in identifying cancer patients who may not benefit from anti-epidermal growth factor receptor (EGFR) therapy, such as panitumumab or cetuximab.

Methodology

By Real-Time PCR

Features & Benefits

- ◇ Turnaround time: < 2 hours
- ◇ Sensitivity: ~1%

Specimen Requirements

- ◇ Formalin-fixed, paraffin-embedded tissue
- ◇ Fresh tissue samples
- ◇ Frozen biopsy
- ◇ DNA materials

Targeted Mutations

Mutation	Base Change
Gly12Asp	GGT>GAT
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Gly12Ala	GGT>GCT
Gly12Arg	GGT>CGT
Gly13Asp	GGC>GAC