



NRAS StripAssay[®]

Identify the most relevant mutations in the *NRAS* gene to optimize colorectal cancer therapies

- NRAS represents a member of the RAS protein family that is involved in EGFR signalling
- Mutations in *NRAS* are found in a variety of human tumors
- In colorectal cancer (CRC) *NRAS* is mutated at a total frequency of approximately 3%
- Recent data suggest that *NRAS* mutations predict a lack of response to panitumumab and cetuximab therapy

Cancer	Target	Therapeutic	Oncogene	Outcome
Metastatic colorectal cancer	EGFR	Panitumumab Cetuximab	<i>NRAS</i> wildtype	Tumor remission
			<i>NRAS</i> mutated	Tumor progression

The Assay

- Simple protocol for complex diagnostic questions
- Manual or automated processing
- No expensive lab equipment required
- Ready-to-use reagents
- CE-labeled complete kit



NRAS

NRAS and KRAS are members of the RAS oncoprotein family that act as MAPK signaling pathway GTPases downstream of the Epidermal Growth Factor Receptor (EGFR). Activating KRAS mutations predict a lack of response to anti-EGFR monoclonal antibody therapies (cetuximab or panitumumab) in colorectal cancer (CRC) patients. KRAS and NRAS mutations are mutually exclusive.

In the Panitumumab Randomized Trial in Combination with Chemotherapy for Metastatic Colorectal Cancer to Determine Efficacy (PRIME) study, NRAS mutations were detected in a fraction of KRAS wildtype CRC tumors. The published data suggest that NRAS mutations, in addition to KRAS mutations, predict a lack of response to anti-EGFR therapy in metastatic CRC patients.

The NRAS StripAssay® detects the following mutations: Codon p.G12A (c.35G>C), p.G12C (c.34G>T), p.G12D (c.35G>A), p.G12S (c.34G>A), p.G12V (c.35G>T), p.G13D (c.38G>A), p.G13R (c.37G>C), p.G13V (c.38G>T), p.Q61H (c.183A>T), p.Q61K (c.181C>A), p.Q61L (c.182A>T), p.Q61R (c.182A>G)

Mutations detected	Codon 12					Codon 13			Codon 61			
	Ala	Cys	Asp	Ser	Val	Asp	Arg	Val	His	Lys	Leu	Arg
NRAS StripAssay® 5-610	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The three steps of the ViennaLab NRAS StripAssay®

Step	Requirement
1. Amplification: Multiplex PCR. Simultaneous biotin-labelling	Thermocycler
2. Hybridization: Directly on the StripAssay® teststrips	Incubator
3. Identification: Labeled products detected by streptavidin-alkaline phosphatase	Naked eye or scanner & software

Cat.no.: NRAS StripAssay® 5-610 (20 tests/kit)

ViennaLab offers StripAssays® for a wide range of diagnostic applications. Visit www.viennalab.com

Manufacturer:
 ViennaLab Diagnostics GmbH
 Gaudenzdorfer Gürtel 43–45
 A-1120 Vienna, Austria
 Phone: (+43-1) 8120156-0
 Fax: (+43-1) 8120156-19
info@viennalab.com

Distributor:



Oasis
 DIAGNOSTICS

15720 NE 31st Ave, Vancouver WA, 98686
 Tel: 360-546-1563 Email: info@4saliva.com
www.4saliva.com



More details available at www.viennalab.com