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# Mutant Ras Antibody Sampler Kit



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1 Kit (3 x 20 microliters)

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Ras (G12V Mutant Specific) (D2H12) Rabbit mAb	14412	20 µl	21 kDa	Rabbit IgG
Ras (G12D Mutant Specific) (D8H7) Rabbit mAb	14429	20 µl	21 kDa	Rabbit IgG
Ras (D2C1) Rabbit mAb	8955	20 µl	21 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

## Description

The Mutant Ras Antibody Sampler Kit provides an economical means of detecting common mutation in the Ras protein. The kit contains enough primary and secondary antibodies to perform at least two western blot experiments.

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

## Background

The 21 kDa guanine-nucleotide binding proteins (K-Ras, H-Ras, and N-Ras) cycle between active (GTP-bound) and inactive (GDP-bound) forms (1). Receptor tyrosine kinases and G protein-coupled receptors activate Ras, which then stimulates the Raf-MEK-MAPK pathway (2-4). GTPase-activating proteins (GAP) normally facilitate the inactivation of Ras. However, research studies have shown that in 30% of human tumors, point mutations in Ras prevent the GAP-mediated inhibition of this pathway (5). The most common oncogenic Ras mutation found in tumors is Gly12 to Asp12 (G12D), which prevents Ras inactivation, possibly by increasing the overall rigidity of the protein (5,6). Additional oncogenic mutations of Ras have been observed at varying frequencies at codons 12, 13, and 61. The Gly12 to Val12 (G12V) mutation has been detected in a number of different cancers, including colorectal and thyroid cancer (7,8).

## Background References

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