Datasheet for ABIN7505275

HRAS Protein (AA 1-186) (His tag)

Go to Product page

Overview

Quantity:	100 µg
Target:	HRAS
Protein Characteristics:	AA 1-186
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HRAS protein is labelled with His tag.

Product Details

Sequence:	Met 1-Met 186
Characteristics:	A DNA sequence encoding the Human K-Ras protein (P01116-2) (Met 1-Met 186) was expressed with a N-His&C-His tag.
Purity:	> 95 % as determined by reducing SDS-PAGE.

Target Details

Target:	HRAS
Alternative Name:	K-Ras (HRAS Products)
Background:	Abbreviation: K-Ras Target Synonym: RASK,K-Ras 2,K-Ras4B Background: K-Ras belongs to the small GTPase superfamily, Ras family. As other members of the Ras family, K-Ras is a GTPase and is an early player in many signal transduction pathways.

Target Details

	It is usually tethered to cell membranes because of the presence of an isoprenyl group on its C-terminus. K-Ras functions as a molecular on/off switch. Once it is turned on it recruits and activates proteins necessary for the propagation of growth factor and other receptors' signal, such as c-Raf and PI 3-kinase. It binds to GTP in the active state and possesses an intrinsic enzymatic activity which cleaves the terminal phosphate of the nucleotide converting it to GDP. Upon conversion of GTP to GDP, K-Ras is turned off. The rate of conversion is usually slow but can be sped up dramatically by an accessory protein of the GTPase activating protein class, for example RasGAP. In turn K-Ras can bind to proteins of the Guanine Nucleotide Exchange Factor class, for example SOS1, which forces the release of bound nucleotide. Subsequently, K-Ras binds GTP present in the cytosol and the GEF is released from ras-GTP. Besides essential function in normal tissue signaling, the mutation of a K-Ras gene is an essential step in the development of many cancers. Several germline K-Ras mutations have been found to be associated with Noonan syndrome[4] and cardio-facio-cutaneous syndrome. Somatic K-Ras mutations are found at high rates in Leukemias, colon cancer, pancreatic cancer and lung cancer.
Molecular Weight:	Calculated MW: 20.35 kDa Observed MW: 30 kDa
UniProt:	P01116-2
Pathways:	p53 Signaling, MAPK Signaling, RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Hepatitis C, Autophagy, Signaling Events mediated by VEGFR1 and VEGFR2, Signaling of Hepatocyte Growth Factor Receptor, Regulation of long-term Neuronal Synaptic Plasticity, VEGF Signaling, BCR Signaling

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Handling

	Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Expiry Date:	12 months

Copyright antibodies-online. All rights reserved.