KRAS Protein, Human (G12V, His)

Cat. No.:	HY-P7805
Synonyms:	Ki-Ras; c-K-ras; KRAS2; RASK2; KRAS4B; KRAS4B; K-Ras4B
Species:	Human
Source:	E. coli
Accession:	AAH13572.1 (T2-C185, G12V)
Gene ID:	3845
Molecular Weight:	25-30 kDa, observed by reducing SDS-PAGE

PROPERTIES

AA Sequence	H H H H H H T E Y K L V V V G A V G V G K S A L T I Q L I Q N H F V D E Y D P T I E D S Y R K Q V V I D G E T C L L D I L D T A G H E E Y S A M R D Q Y M R T G E G F L C V F A I N N T K S F E D I H H Y R E Q I K R V K D S E D V P M V L V G N K C D L P S R T V D T K Q A Q D L A R S Y G I P F I E T S A K T R Q G V D D A F Y T L V R E I R K H K E K M S K D G K K K K K K S K T K C
Biological Activity	Measured by its ability to catalyze the substrate GTP. The specific activity is 2.03 nmol/min/mg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	KRAS, a pivotal member of the Ras protein family, exhibits the ability to bind GDP/GTP and possesses intrinsic GTPase activity. Its crucial involvement in the regulation of cell proliferation underscores its significance in cellular processes. Notably, KRAS plays a prominent role in promoting oncogenic events, particularly in colorectal cancer (CRC), where it induces transcriptional silencing of tumor suppressor genes (TSGs) in a ZNF304-dependent manner. This multifaceted

functionality highlights KRAS as a key player in cellular dynamics and emphasizes its relevance in both normal and pathological cellular processes.

REFERENCES

[1]. Jianhua Ling, et al. KrasG12D-induced IKK2/β/NF-κB activation by IL-1α and p62 feedforward loops is required for development of pancreatic ductal adenocarcinoma. Cancer Cell. 2012 Jan 17;21(1):105-20.

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