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Recombinant Human KRAS(G12V)

Catalog#:P00403 Derived from *E.coli*

DESCRIPTION	Recombinant Human GTPase Kras is produced by our *E.coli* expression system and the target gene encoding Thr2-Cys185(Gly12Val) is expressed with a 6His tag at the N-terminus. **Accession#**: AAH13572.1 **Known as**: Ki- Ras; c- K-ras; KRAS2; RASK2; CFC2
FORMULATION	Lyophilized from a 0.2μm filtered solution of PBS, pH 7.4.
SHIPPING	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
STORAGE	Lyophilized protein should be stored at<-20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
RECONSTITUTION	*Always centrifuge tubes before opening. Do not mix by vortex or pipetting.* *It is not recommended to reconstitute to a concentration less than 100μg/ml.* Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
QUALITY CONTROL	**Mol Mass**:23.6kDa **AP Mol Mass**:25-30kDa, reducing conditions. **Purity**: Greater than 95% as determined by reducing SDS-PAGE. **Endotoxin**: Less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
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. 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. Ras proteins bind GDP/GTP and possess intrinsic GTPase activity. Plays an important role in the regulation of cell proliferation. Plays a role in promoting oncogenic events by inducing transcriptional silencing of tumor suppressor genes (TSGs) in colorectal cancer (CRC) cells in a ZNF304-dependent manner. 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 and cardio-facio-cutaneous syndrome. Somatic K- Ras mutations are found at high rates in Leukemias, colon cancer, pancreatic cancer and lung cancer.

SDS-PAGE