### **Summary**

Name KRAS (G12V)

**Purity** Greater than 95% as determined by reducing SDS-PAGE

**Endotoxin level** <1 EU/μg as determined by LAL test.

Construction 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

Host E.coli

**Species** Human

Predicted Molecular Mass 23.6 KDa

Formulation Lyophilized from a 0.2 µm 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.

**Stability&Storage** Store at  $\leq$ -70°C, stable for 6 months after receipt. Store at  $\leq$ -70°C, stable for 3

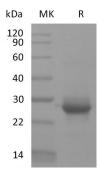
months under sterile conditions after opening. Please minimize freeze-thaw

cycles.

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is

not recommended to reconstitute to a concentration less than  $100\mu g/ml$ . Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than  $100\mu g/ml$ . Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## **SDS-PAGE** image



# **Background**

# Product Name: Recombinant Human KRAS (G12V, N-6His) Enkilife Catalog #: PEH2129

Alternative Names Ki-Ras; c-K-ras; KRAS2; RASK2; CFC2

**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[4] and cardio-facio-cutaneous syndrome. Somatic K-Ras mutations are found at high

rates in Leukemias, colon cancer, pancreatic cancer and lung cancer.

#### Note

For Research Use Only, Not for Diagnostic Use.

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