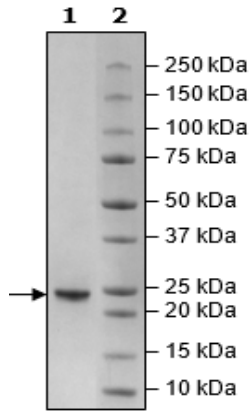


Product Information

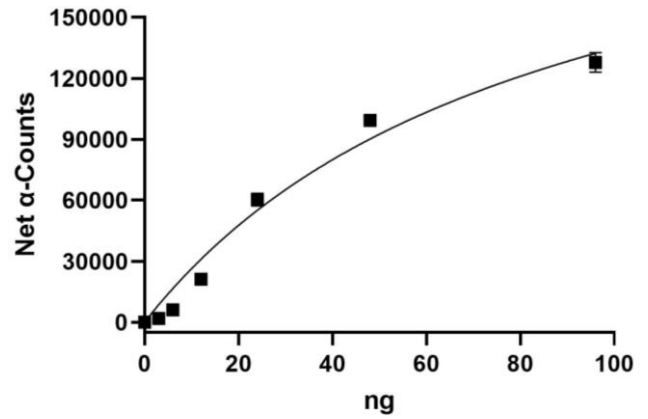
Description:	Recombinant human KRAS (GTPase), isoform b, encompassing amino acids 2-185. This construct contains an N-terminal His-tag (6xHis). The protein also contains the mutation of interest G12V. The protein (BPS Bioscience #100480) was affinity purified and loaded with GppNHp, a non-hydrolyzable GTP analog. Unbound GppNHp was removed by spin column.
Background:	KRAS (Kirsten rat sarcoma virus) is a GTPase part of the RAS/MAPK pathway, being involved in signal transduction for cell proliferation and differentiation. KRAs is a proto-oncogene and mutations in it are responsible for more than 30% of human cancers, such as leukemia, lung adenocarcinoma, pancreatic and colorectal cancer. Although new treatments have been recently developed to mitigate the tumor-promoting effects of RAS mutations, one mutant, KRAS (G12V), has been resistant to most known inhibitors. New compounds that affect the nucleotide exchange (GDP to GTP) reaction in KRAS mutant G12V are expected to inhibit tumor cell growth in KRAS (G12V)-driven tumors.
Species:	Human
Construct:	KRAS (G12V) (His-2-185)-(GppNHp)
Mutation:	G12V
Concentration:	1.11 mg/ml
Expression System:	Sf9
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	20 mM HEPES, pH 7.4, 150 mM NaCl, and 1 mM DTT
MW:	22 kDa
Genbank Accession:	NM_004985
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	KRAS (G12V) GppNHp-loaded was tested for binding to the RBD of RAF1. KRAS (G12V) GppNHp-loaded was compared with KRAS (G12V) GDP-loaded (BPS Bioscience #101355) for RBD-RAF1 (BPS Bioscience #100519) binding by AlphaScreening (PerkinElmer).
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



GppNHP Loaded KRAS (G12V) Activity



KRAS: cRaf Binding

