

Product description



Product name KRAS-2B Q61H mutant SIL-protein



Catalog number RA147701

Uniprot ID P01116-2

KRAS-2B: Human KRAS isoform 2B plays an important role in the regulation of cell proliferation and in promoting oncogenic events. In particular, KRAS G12C mutation predominates in NSCLC (Non small cells lung cancer), as well as in pancreatic and colorectal cancer.

Labelled KRAS is a recombinant protein, stable isotope labelled (SIL), designed for use as an internal standard for quantitative analysis of RAS by mass spectrometry (MS) (1,2).

Synonyms: GTPase Kras, K-Ras 2, c-K-ras, Ki-Ras

Protein sequence

KRAS_2B_Q61H

MHHHHHHGKPIPPLLGLDSTENLYFQGIDPFTTEYKLVVVVGGGKSAITLIQNHVDEYDPTIEDSYRKQVVIDGETCLLDILDITAGHE
EYSAMRDQYMRTEGEGFLCVFAINNTKSFEDIHHYREQIKRVKDSSEVPMVLVGNKCDLPSRTVDTKQAQDLARSYGIPFIETSAKTRQGVDDA
FYTLVREIRKHKEK

Product features and protocols

Key features

- 1** Purity >95% as determined by SDS-PAGE
- 2** Labelling Arg-¹³C₆, ¹⁵N₄ | Lys-¹³C₆, ¹⁵N₂
- 3** Isotopic incorporation >98% as determined by LC-MS/MS analysis of digested SIL-protein

Other features

Predicted MW	22.906 kDa
Expression System	E.coli
Purification Tag	polyHis tag at the N-terminus end
Protein content	Quantitation is carried out by UV Absorbance at 280 nm
Formulation	Lyophilized 150 mM NaCl, 2 mM MgCl ₂ 20 mM HEPES pH 7.5

Product preparation

For product preparation we recommend the following steps:

1. Briefly centrifuge the tube before opening
2. Reconstitute by adding the appropriate volume of ultrapure water for a final concentration of 200 µg/ml (e.g. 50 µl for 10 µg or 250 µl for 50 µg conditioning)
3. Vortex gently to insure complete dissolution
4. Wait 15 minutes at Room temperature before proceeding further
5. Vortex gently again and centrifuge briefly

Product storage

The product is lyophilized and shipped at room temperature. **Store at -80 °C upon receipt.**

After reconstitution, the protein can be preserved at 4°C for a few weeks.

Avoid multiple freeze-thaw cycles

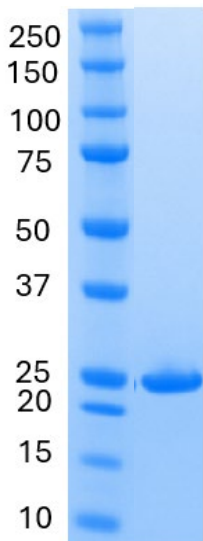
How to use our product



SIL proteins allow to overcome the process variability since they are added at the very beginning of a sample preparation. This has potential positive impact on your analyte quantification, especially if the analyte interacts with other species commonly present within the matrix (1).



Supporting information



KRAS-2B Q61H mutant SIL-protein RA147701
SDS-PAGE gel analysis in Reducing/Heated conditions (RH). Stained with Coomassie blue.

References

1. **G.Picard, D. Lebert, et al.** PSAQ standards for accurate MS-based quantification of proteins: from the concept to biomedical applications, *J. Mass Spectrom.* 2012, 47, 1353-1363
2. **M. R. Janes et al.** Targeting KRAS Mutant Cancers with a Covalent G12C-Specific Inhibitor 2018, *Cell* 172, 578–589



The product is intended for research use only. Not for diagnostic or therapeutic use.

Legal

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Promise Proteomics	DATA SHEET_RA147701_rev01_KRAS-2B Q61H
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Approval	Wilfried Bardet	Bioproduction Manager		

Version	Application date	Modifications history
01		Creation