

Product Description

Product Name: Ras Protein

Synonyms: GTPase Ras

Catalogue Number: 10110

Source: Human, recombinant full length, His₆-tag

Expression Host: E. coli

Molecular Weight: 21 kDa

Purity: >99% by SDS-PAGE

Introduction: Small GTPases are a super-family of cellular signaling regulators. Ras belongs to the Ras sub-family of GTPases that regulate cell proliferation, cell motility, and gene transcription. GTP binding increases the activity of Ras, and the hydrolysis of GTP to GDP renders it inactive. GTP hydrolysis is aided by GTPase activating proteins (GAPs), while exchange of GDP for GTP is facilitated by guanine nucleotide exchange factors (GEFs).

Amino Acid Sequence (1-189)

MTEYKLVVVGAGGVGKSALTIQLIQNHVFDEYDPTIED
SYRKQVVIDGETCLLDILDITAGQEEYSAMRDQYMRGTGE
GFLCVFAINNTKSFEDIHQYREQIKRVKDSDDVPMVLV
GNKCDLAARTVESRQAQDLARSYGIPYIETSAKTRQGV
EDAFYTLVREIRQHKLRKLNPPDESGPGCMSCKCVLS

Properties

Physical Appearance (form): Frozen protein in 20 mM Tris-HCl, pH 7.4, containing 100 mM NaCl and 10% glycerol.

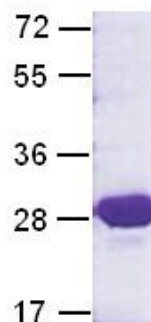
Physical Appearance (color): Clear, colorless

Concentration: 1 mg/mL

Storage: -80°C

Preparation Instructions

Adding of 10 mM β -mercaptoethanol or 1 mM DTT into the solution to protect the protein is recommended and using of non-ionic detergents such as n-Dodecyl β -D-maltoside (DoDM) or polyethylene detergents (e.g. C₁₂E₁₀) also help to stabilize the protein. Avoid repeated freezing and thawing.



The purity of His-tagged Ras was determined by SDS- PAGE and Coomassie Brilliant Blue Staining.

References

1. Chen, H.-J. et al., Neuron 20: 895-904, 1998.
2. Hamdan, F. F. et al., New Eng. J. Med. 360: 599-605, 2009.
3. Oh, J. S. et al., Neuron 33: 151 only, 2002.
4. Rumbaugh, G. et al., Proc. Nat. Acad. Sci. 103: 4344-4351, 2006.
5. Tomoda, T. et al., Genes Dev. 18: 541-558, 2004.

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