

Ras(Q61L) Mutant

Catalog Number: 10111

Synonyms: GTPase Ras

Background: 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, Q61L)

MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTI
EDSYRKQVVIDGETCLLDILDITAGL~~E~~EEYSAMRDQY
MRTGEGFLCVFAINNTKSFEDIHQYREQIKRVKDSD
DVPMVLVGNKCDLAARTVESRQAQDLARSYGIPYIE
TSAKTRQGVEDAFYTLVREIRQHKLRKLNPPDESGP
GCMSCKCVLS

Source: Human, recombinant full length, His6-tag

Expression Host: E. coli

Molecular Weight: 21 kDa

Purity: >98% by SDS-PAGE

Constituents: 20 mM Tris-HCl, pH 8.0, 150 mM NaCl.

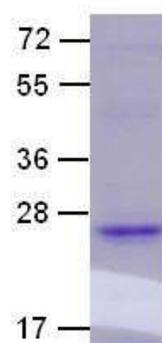
Physical Appearance: Clear, colorless

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(Q61L) 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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