

**Product Name:** Ras Protein Q61L mutant

**Synonyms:** Resistance to audiogenic seizures, Asr

**Catalogue Number:** 10111

**Source:** Human, recombinant full length, His<sub>6</sub>-tag

**Expression Host:** E. coli

**Molecular Weight:** 21 kDa

**Purity:** >95% 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, Q61L)

MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIED  
SYRKQVVIDGETCLLDILDITAGL~~EEYS~~AMRDQYMRGTGE  
GFLCVFAINNTKSFEDIHQYREQIKRVKDSDDVPMVLV  
GNKCDLAARTVESRQAQDLARSYGIPYIETSAKTRQGV  
EDAFYTLVREIRQHKLRKLNPPDESGPGCMSCCKCVLS

#### Properties

**Physical Appearance (form):** Lyophilized Powder from 20 mM Tris-HCl, pH 7.4, containing 100 mM NaCl.

**Physical Appearance (color):** White

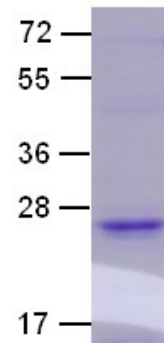
**Solubility (Color):** colorless

**Solubility (Turbidity):** clear, 10 mg/mL H<sub>2</sub>O

**Storage:** -80°C

#### Preparation Instructions

Centrifuge the vial before open the cap and reconstitute in water. Adding of 10 mM  $\beta$ -mercaptoethanol or 1 mM DTT into the solution to protect the protein is recommended and using of non-ionic detergents such as n-Dodecyl  $\beta$ -D-maltoside (DoDM) or polyethylene detergents (e.g. C<sub>12</sub>E<sub>10</sub>) also help to stabilize the protein. Avoid repeated freezing and thawing after reconstitution.



#### 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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