![NewEast Biosciences logo]

Product Description

Pioneering GTPase and Oncogene Product Development since 2010

Cdc42

Catalog Number: 10107

Synonyms: Cell division cycle 42, G25K, CDC42Hs

Background: Small GTPases are a super-family of cellular signaling regulators. Cdc42 belongs to the Rho sub-family of GTPases that regulate cell motility, cell division, and gene transcription. GTP binding increases the activity of Cdc42, and the hydrolysis of GTP to GDP renders it inactive. GTPhydrolysis is aided by GTPase activating proteins (GAPs), while exchange of GDP for GTP is facilitated by guanine nucleotide exchange factors(GEFs).

Amino Acid Sequence: (1-191)
MQTIKCVVVGDGAVGKTCLLISYTTNKFPSEYVPTV
FDNYAVTVMIGGEPYTLGLFDTAGQEDYDRLRPLSY
PQTDVFLVCFSVVSPSSFENVKEKWVPEITHHCPKTP
FLLVGTQIDLRDDPSTIEKLAKNKQKPITPETAEKLA
RDLKAVKYVECSALTQKGLKNVFDEAILAALEPPEP
KKSRRCVL L

Source: Human, recombinant full length, His6-tag

Expression Host: E. coli

Molecular Weight: 21 kDa

Purity: > 99% by SDS-PAGE

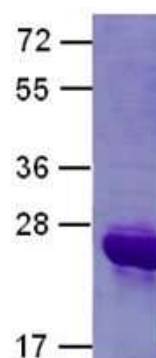**Constituents:** 20 mM Tris-HCl, pH8.0, 150 mM NaCl.

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 Cdc42 was determined by SDS-PAGE and Coomassie Brilliant Blue Staining.

References

1. Garrett, W. S. et al., Cell 102: 325-334, 2000.
2. Irie, F. et al., Nature Neurosci. 5: 1117-1118,2002.
3. Kawasaki, Y. et al., Oncogene 26: 7620-7627,2007.
4. Manser, E. et al., Nature 363: 364-367, 1993.
5. Musch, A. et al., EMBO J. 20: 2171-2179, 2001.
6. Nalbant, P. et al., Science 305: 1615-1619,2004.
7. Shen, Y. et al., Dev. Cell 14: 342-353, 2008.
8. Wu, W. J. et al., Nature 405: 800-804, 2000.
9. Wu, X. et al., Genes Dev. 20: 571-585, 2006.
10. Zheng, Y. et al., J. Biol. Chem. 271: 33169-33172, 1996.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC APPLICATIONS