

Recombinant Human Cell Division Cycle 42, T7-tagged

Cat. No. CDC42-1394H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CDC42, fused to T7-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. MW = 22.4 kDa (203aa).
Species	Human
Source	<i>E.coli</i>
Description	Cell division cycle 42 isoform 1, also known as CDC42, is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. Also, this protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Loss of CDC42 function caused an increase in the endocytotic uptake of apical proteins, including apical polarity factors such as Crumbs.
Amino Acid Sequence	MASMTGGQQM GRGSHMQTIK CVVVG DGAVG KTCLLISYTT NKFPSEYVPT VFDNYAVTVM IGGEPYTLGL FDTAGQEDYD RLRPLSYPQT DVFLVCFSVV SPSSFENVKE KWPPEITHHC PKTPFLLVGT QIDLRDDPST IEKLAKNKQK PITPETA EKL ARDLKAVKYV ECSALTQKGL KNVFDEAILA ALEPPEPKKS RRC
Form	Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol, 2mM EDTA.
Purity	> 95% by SDS – PAGE.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Concentration	1 mg/ml (determined by Bradford assay).
Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	CDC42 cell division cycle 42 (GTP binding protein, 25kDa) [Homo sapiens]
Synonyms	CDC42; cell division cycle 42 (GTP binding protein, 25kDa); G25K; CDC42Hs; cell division cycle 42; OTTHUMP00000002834; GTP-binding protein, 25kD; growth-regulating protein; small GTP binding protein CDC42; dJ224A6.1.1 (cell division cycle 42 (GTP-binding protein, 25kD)); dJ224A6.1.2 (cell division cycle 42 (GTP-binding protein, 25kD)); Cell division control protein 42 homolog; G25K GTP-binding protein; OTTHUMP00000002926; cell division cycle 42 (GTP binding protein, 25kD); cell division cycle 42 (GTP-binding protein, 25kD)
Gene ID	998
mRNA Refseq	NM_001039802
Protein Refseq	NP_001034891
MIM	116952
UniProt ID	P60953
Chromosome Location	1p36.1

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Pathway

Adherens junction; Axon guidance; Chemokine signaling pathway; Endocytosis; Epithelial cell signaling in Helicobacter pylori infection; Fc gamma R-mediated phagocytosis; Focal adhesion; GnRH signaling pathway; Leukocyte transendothelial migration; MAPK signaling pathway; Neurotrophin signaling pathway; Pancreatic cancer; Pathogenic Escherichia coli infection; Pathways in cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; T cell receptor signaling pathway; Tight junction; VEGF signaling pathway; Axon guidance; Signaling by EGFR; Signaling by Rho GTPases

Function

GTP binding; GTPase activity; nucleotide binding; protein binding

PDB rendering based on 1a4r.

