Active Recombinant Human CDC42 protein, His-tagged

Cat. No. CDC42-2634H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CDC42 fused with histidine tag in the amino-terminus was expressed in E. coli.
Species	Human
Source	E.coli
Description	The protein encoded by this gene 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. This protein is highly similar to Saccharomyces cerevisiae Cdc 42, and is able to complement the yeast cdc42-1 mutant. The product of oncogene Dbl was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants. Pseudogenes of this gene have been identified on chromosomes 3, 4, 5, 7, 8 and 20.
Form	2 mM Tris pH 7.6, 0.5 mM MgCl2, 0.5% sucrose, 0.1% dextran.
Bio-activity	The biological activity is determined by its ability to exchange nucleotide.
Molecular Mass	~22 kDa
Purity	>90% pure

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

Applications	Cdc42 biochemistry; Cdc42 GTPase assays; Cdc42 nucleotide exchange assays; Cdc42 binding studies
Reconstitution	Reconstituted in distilled water to 1 mg/ml

GENE INFORMATION

Gene Name	CDC42 cell division cycle 42 (GTP binding protein, 25kDa) [Homo sapiens]
Official Symbol	CDC42
Synonyms	CDC42; cell division cycle 42 (GTP binding protein, 25kDa); cell division cycle 42 (GTP binding protein, 25kD); cell division control protein 42 homolog; CDC42Hs; G25K; G25K GTP-binding protein; 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));
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	Adaptive Immune System, organism-specific biosystem; Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; Axon guidance, organism-specific biosystem; Axon guidance, organism-specific biosystem;
Function	GTP binding; GTP-dependent protein binding; GTPase activity; GTPase activity; mitogen-activated protein kinase kinase kinase binding; nucleotide binding; protein binding; thioesterase binding;

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