

Recombinant Human Cell Division Cycle 42, GST-tagged

Cat. No. CDC42-1023H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source E.coli

Description

Rho family GTPases Rac1 and Cdc42 (cell division cycle 42) belong to the Ras superfamily of small GTP-binding proteins. The human homolog of yeast Cdc42 is essential for cell polarity and regulates cytoskeletal rearrangements in responses to growth factor stimulation. The Cterminal deletion of 13 amino acids of Cdc42 Δ C includes the polybasic domain consisting of six contiguous basic amino acids. The polybasic domain of Cdc42 is required for homodimer formation. The Gly12 to Val mutation of Cdc42 Δ C leads to a constitutive active protein. The GST-Tag facilitates the protein's application in typical GST pull-down assays. MW=19.8kDa (178 amino acids).

Form Liquid. Supplied in 20mM Tris-HCl pH8.0, 100mM NaCl, 5 mM MgCl₂ and 5mM β -mercaptoethanol.

Purity $\geq$ 95% by SDS-PAGE.

Usage For in vitro use only.

Storage Quality guaranteed for 12 months. Store at -80°C. Avoid freeze / thaw cycles.

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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
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;

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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.

