

## Active Recombinant Human CDC42(T17N) protein, GST-tagged

**Cat. No.** CDC42-2636H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human CDC42 fused with GST tag in the amino-terminus was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | The dominant negative form of the Cdc42 protein (G25K isoform) contains a threonine to asparagine substitution at residue 17. The common name for this mutant is Cdc42(T17N) (or N17Cdc42). The asparagine substitution abolishes the protein's affinity for GTP and reduces its affinity for GDP. Hence, the Cdc42(T17N) is always in either a nucleotide free state or in its inactive, GDP-bound, state. Because of this, it binds strongly to Cdc42 GEFs and it blocks wild type Cdc42 from being activated by these GEFs. |
| <b>Form</b>             | 2 mM Tris pH 7.6, 0.5 mM MgCl <sub>2</sub> , 0.5% sucrose, 0.1% dextran.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Bio-activity</b>     | Activity of Cdc42(T17N) was verified by the ability of the protein to inhibit GEF activation of wild type Cdc42 in an in vitro GEF assay.                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Mass</b>   | ~50 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity</b>           | >90% pure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Applications</b>     | Cdc42 GEF binding studies; Inhibition of Cdc42 GEFs in vitro; Inhibition of Cdc42 in                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

vivo by microinjection

**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

**Pathway** Adaptive Immune System, organism-specific biosystem; Adherens junction,

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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

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 binding; nucleotide binding; protein binding; thioesterase binding;

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

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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