

# Recombinant human CDC42 protein

Catalog Number: ATGP0395

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-188aa

### UniProt No.

P60953

### NCBI Accession No.

NP\_001782

### Alternative Names

Cell division cycle 42 isoform 1, G25K, Cell division cycle 42 isoform 1 CDC42Hs, Cell division cycle 42, Small GTP binding protein CDC42.

## PRODUCT SPECIFICATION

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### Molecular Weight

22.4 kDa (203aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol, 2mM EDTA

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

T7-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### 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

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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. Recombinant human CDC42, fused to T7-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

<MASMTGGQQM GRGSH>MQTIK CVVVG DGAVG KTCLLSYTT NKFPSEYVPT VFDNYAVTVM IGGEPYTLGL  
FDTAGQEDYD RLRPLSYPQT DVFLVCFSVV SPSSFENVKE KVVPEITHHC PKTPFLLVGT QIDLRDDPST IEKLAKNKQK  
PITPETAEKL ARDLKAVKYV ECSALTQKGL KNVFDEAILA ALEPPEPKKS RRC

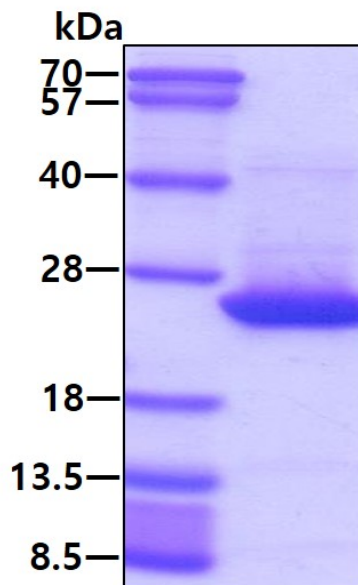
## General References

Kathryn P., et al. (2008) *J Cell Biol.* 183(6):1129-1143.

Li R., et al. (1997) *J Biol Chem.* 272(52):32830-5.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.