
Product Data Sheet

Product Name: CDC42 Human
 Cat. No.: GP23098
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Cell division control protein 42 homolog; G25K GTP-binding protein; CDC42; G25K; CDC42Hs.		
Amino Acid Sequence	MASMTGGQQM GRGSHMQTIK CVVVG DGAVG KTCLLISYTT NKFPEYVPT VFDNYAVTVM IGGEPYTLGL FDTAGQEDYD RLRPLSYPQT DVFLVCFSVV SPSSFENVKE KWPPEITHHC PKTPFLLVGT QIDLRDDPST IEKLAKNKQK PITPETAEKL ARDLKAVKYV ECSALTQKGL KNVFDEAILA ALEPPEPKKS RRC.		
Formulation	The CDC42 solution contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT, 10% glycerol and 2mM EDTA.		

Introduction

CDC42 (Cell division cycle 42 isoform 1) is a small GTPase of the Rho-subfamily that regulates signaling pathways which control various cellular functions including cell morphology, migration, endocytosis and cell cycle progression. CDC42 is a plasma membrane-associated small GTPase which cycles between an active GTP-bound and an inactive GDP-bound state. In the active state, CDC42 binds to a variety of effector proteins to regulate cellular responses. CDC42 is involved in epithelial cell polarization processes. CDC42 causes the formation of thin, actin-rich surface projections called filopodia. Also, CDC42 regulates actin polymerization through its direct binding to N-WASP (Neural Wiskott-Aldrich syndrome protein), which subsequently activates Arp2/3 complex. Loss of CDC42 function raises endocytotic uptake of apical proteins, as well as apical polarity factors such as Crumbs. The product of oncogene Dbl was described to specifically catalyze the dissociation of GDP from CDC42 protein.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

CDC42 Human Recombinant fused with a 15 amino acid T7 tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 203 amino acids (1-188 a.a.) and having a molecular mass of 22.4kDa. The CDC42 is purified by proprietary chromatographic techniques.

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