Proteins

Product Data Sheet



CDC42BPB Protein, Human (sf9, His-GST)

Cat. No.: HY-P76815

Synonyms: Serine/threonine-protein kinase MRCK beta; CDC42BP-beta; DMPK-like beta; MRCK beta

Species:

Sf9 insect cells Source: Accession: Q9Y5S2 (M1-H427)

Gene ID: 9578

Molecular Weight: Approximately 70 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 50 mM PBS, 500 mM NaCl, 10% Glycerol, 2 mM GSH, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CDC42BPB Protein, a serine/threonine-protein kinase, stands as a pivotal downstream effector of CDC42, exerting significant influence over cytoskeleton reorganization and cell migration. Through the phosphorylation of PPP1R12C and MYL9/MLC2, CDC42BPB orchestrates the regulation of actin cytoskeletal reorganization, emphasizing its role in shaping cellular dynamics. Collaborating with MYO18A and LURAP1, CDC42BPB actively participates in the modulation of lamellar actomyosin retrograde flow, a process critical for cell protrusion and migration. Furthermore, CDC42BPB phosphorylates PPP1R12A, contributing to its multifaceted impact on cellular functions. In tandem with FAM89B/LRAP25, CDC42BPB facilitates the targeting of LIMK1 to the lamellipodium, initiating its activation and subsequent phosphorylation of CFL1, a crucial event for the regulation of lamellipodial F-actin dynamics.

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