

Product Data Sheet

TRIP10/CIP4 Protein, Human (sf9, His)

Cat. No.:	HY-P76260
Synonyms:	Cdc42-interacting protein 4; Protein Felic; hSTP; TRIP-10; CIP4; STOT; STP
Species:	Human
Source:	Sf9 insect cells
Accession:	Q15642 (M1-N545)
Gene ID:	9322
Molecular Weight:	Approximately 84.2 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, 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 $\mu\text{g}/\text{mL}$ in ddH_2O.
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	TRIP10/CIP4 Protein emerges as a pivotal orchestrator in cellular dynamics, playing a crucial role in diverse processes ranging from insulin-induced GLUT4 translocation to the plasma membrane to the coordination of membrane tubulation during endocytosis. This multifaceted protein is adept at binding lipids, including phosphatidylinositol 4,5-bisphosphate and phosphatidylserine, thereby promoting membrane invagination and the formation of tubules. TRIP10/CIP4 also showcases its versatility by participating in CDC42-induced actin polymerization, recruiting the essential regulator WASL/N-WASP, and activating the Arp2/3 complex. The resultant actin polymerization facilitates the fission of membrane tubules, contributing to the formation of endocytic vesicles. Beyond endocytosis, TRIP10/CIP4 is a key player in podosome formation, specialized actin-rich adhesion structures found in monocyte-derived cells. Additionally, it may play a role in the lysosomal retention of FASLG/FASL. The intricate web of protein-protein interactions involves specific binding with GTP-bound RHOQ, CDC42, DNM2, PDE6G, and various other partners, underscoring its central role in cellular processes. The ability of TRIP10/CIP4 to homodimerize and form filamentous structures adds another layer to its dynamic functionality, making it a pivotal player in the intricate tapestry of cellular regulation.

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

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