Product Data Sheet





TMED9 Protein, Human (HEK293, Fc)

Cat. No.: HY-P76679

Synonyms: Transmembrane emp24 domain-containing protein 9; GMP25; p24alpha2; p25; GP25L2

Species: HEK293 Source:

Accession: Q9BVK6 (M1-R202)

Gene ID: 54732

Molecular Weight: Approximately 45.8 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, 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

TMED9, a protein intricately involved in vesicular protein trafficking, predominantly operates within the early secretory pathway, particularly in COPI vesicle-mediated retrograde transport, facilitating coatomer recruitment to membranes. It enhances the coatomer-dependent activity of ARFGAP2 and plays a pivotal role in the specific retention of p24 complexes in cis-Golgi membranes, contributing notably to the coupled localization of TMED2 and TMED10 in the cis-Golgi network. Beyond its involvement in retrograde transport, TMED9 is implicated in the organization of intracellular membranes, including the ER-Golgi intermediate compartment and the Golgi apparatus. It further participates in the ER localization of PTPN2 isoform PTPB. TMED9 exhibits a dynamic oligomeric state, existing as a monomer and homodimer in the endoplasmic reticulum, with a predominantly monomeric state in the endoplasmic reticulum-Golgi intermediate compartment and cis-Golgi network. Oligomerization likely occurs with other members of the EMP24/GP25L family, such as TMED2, TMED7, and TMED10. Additionally, TMED9 engages in specific interactions with TMED5, COPG1, PTPN2, SPAST, and STX17, underscoring its multifaceted involvement in intracellular processes.

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Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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