Data Sheet (Cat.No.TMPY-04861)

TargetMol

TMED1 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	transmembrane emp24 protein transport domain containing 1;St2l;Il1rl1l;Ly84l
Protein Construction:	A DNA sequence encoding the mouse TMED1 (NP_034874.2) (Met1-Asn194) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Gly 25
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	B2RRM5
Molecular Weight:	46 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

TMED1 belongs to the EMP24/GP25L family. It contains 1 GOLD domain and is widely expressed. TMED1 binds to its receptor IL1RL1 and results in the activation of DNA binding by nuclear factor NF-kappa-B or transcription from the IL8 promoter and most likely requires other proteins to elicit these activities. Dendritic cells from Peyer's patches (but not from spleen) express TMED1 in response to treatment with LPS. TMED1 may play a role in vesicular protein trafficking, mainly in the early secretory pathway. It may act as a cargo receptor at the lumenal side for

incorporation of secretory cargo molecules into transport vesicles and may be involved in vesicle coat formation at the cytoplasmic side.

Reference

Colland F, et al. (2004) Functional Proteomics Mapping of a Human Signaling Pathway. Genome Res. 14(7):1324-32.

Gerhard DS, et al. (2005) Towards a proteome-scale map of the human protein-protein interaction network. Nature. 437(7062):1173-8.

Gerhard DS, et al. (2004) The Status, Quality, and Expansion of the NIH Full-Length cDNA Project: The Mammalian Gene Collection (MGC) . Genome Res. 14(10B):2121-7.

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