

# Product Data Sheet

# Inhibitors • Screening Libraries • Proteins

# TMED1 Protein, Human (HEK293, His)

Cat. No.:	HY-P77240
Synonyms:	Transmembrane emp24 domain-containing protein 1; Interleukin-1 receptor-like 1 ligand; Tp24; IL1RL1L; IL1RL1LG
Species:	Human
Source:	HEK293
Accession:	Q13445 (A24-N194)
Gene ID:	11018
Molecular Weight:	Approximately 28 kDa

PROPERTIES	
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AA Sequence	AGPPPIQDGE FTFLLPAGRK QCFYQSAPAN ASLETEYQVI GGAGLDVDFT LESPQGVLLV SESRKADGVH TVEPTEAGDY KLCFDNSFST ISEKLVFFEL IFDSLQDDEE VEGWAEAVEP EEMLDVKMED IKESIETMRT RLERSIQMLT LLRAFEARDR NLQEGNLERV N
Biological Activity	Immobilized Human TMED1 at 10 μg/mL (100 μL/well) can bind Biotinylated ST2 protein. The ED <sub>50</sub> for this effect is 79.64 ng/mL, corresponding to a specific activity is 1.26×10^4 Unit/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution of PBS, pH 7.4.
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

The TMED1 protein potentially plays a role in vesicular protein trafficking, particularly in the early secretory pathway. It may act as a cargo receptor on the lumenal side to facilitate the incorporation of secretory cargo molecules into transport vesicles, and it is also implicated in vesicle coat formation on the cytoplasmic side. Additionally, TMED1 has been shown to have a positive influence on IL-33-mediated IL-8 and IL-6 production by interacting with the interleukin-33 receptor IL1RL1. Furthermore, it is involved in the modulation of innate immune signaling through the cGAS-STING pathway via its

interaction with RNF26. TMED1 forms homodimers in the endoplasmic reticulum, endoplasmic reticulum-Golgi intermediate compartment, and cis-Golgi network. It interacts with IL1RL1 and RNF26, with the latter interaction being particularly important for modulating innate immune signaling through the cGAS-STING pathway.

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

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