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# Datasheet for ABIN3137432 **TMED2 Protein (AA 21-168) (His tag)**

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| Overview                      |   |  |
|-------------------------------|---|--|
| Quantity:                     | 1 mg  |  |
| Target:                       | TMED2   |  |
| Protein Characteristics:      | AA 21-168   |  |
| Origin:                       | Mouse   |  |
| Source:                       | Escherichia coli (E. coli)  |  |
| Protein Type:                 | Recombinant   |  |
| Purification tag / Conjugate: | This TMED2 protein is labelled with His tag.  |  |
| Application:                  | ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)  |  |
| Product Details               |   |  |
| Sequence:                     | YFVSIDAHAE ECFFERVTSG TKMGLIFEVA EGGFLDIDVE ITGPDNKGIY KGDRESSGKY   |  |
|                               | TFAAHMDGTY KFCFSNRMST MTPKIVMFTI DIGEAPKGQD METEAHQNKL EEMINELAVA   |  |
|                               | MTAVKHEQEY MEVRERIHRA INDNTNSR  |  |
|                               | Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a  |  |
|                               | special request, please contact us.   |  |
| Characteristics:              | <ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse Tmed2 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul> |  |
|                               | This protein is a made to order protein and will be made for the first time for your order. Our   |  |
|                               | experts in the lab will ensure that you receive a correctly folded protein.   |  |
|                               | The big advantage of ordering our made-to-order proteins in comparison to ordering custom   |  |

made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in bacterial culture:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

# **Target Details**

| Target:           | TMED2   |
|-------------------|---|
| Alternative Name: | Tmed2 (TMED2 Products)  |
| Background:       | Involved in vesicular protein trafficking. Mainly functions in the early secretory pathway but also |
|                   | in post-Golgi membranes. Thought to act as cargo receptor at the lumenal side for                   |
|                   | incorporation of secretory cargo molecules into transport vesicles and to be involved in vesicle    |
|                   | coat formation at the cytoplasmic side. In COPII vesicle-mediated anterograde transport             |

involved in the transport of GPI-anchored proteins and proposed to act together with TMED10 as their cargo receptor, the function specifically implies SEC24C and SEC24D of the COPII vesicle coat and lipid raft-like microdomains of the ER. Recognizes GPI anchors structural remodeled in the ER by PGAP1 and MPPE1. In COPI vesicle-mediated retrograde transport inhibits the GTPase-activating activity of ARFGAP1 towards ARF1 thus preventing immature uncoating and allowing cargo selection to take place. Involved in trafficking of G protein-coupled receptors (GPCRs). Regulates F2RL1, OPRM1 and P2RY4 exocytic trafficking from the Golgi to the plasma membrane thus contributing to receptor resensitization. Facilitates CASR maturation and stabilization in the early secretory pathway and increases CASR plasma membrane targeting. Proposed to be involved in organization of intracellular membranes such as the maintenance of the Golgi apparatus. May also play a role in the biosynthesis of secreted cargo such as eventual processing (By similarity). Required for morphogenesis of embryo and placenta. {ECO:0000250, ECO:0000269|PubMed:20178780}.

Molecular Weight:

17.8 kDa Including tag.

UniProt:

**Q9R0Q3** 

# **Application Details**

**Application Notes:** 

In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.

Comment:

Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions:

For Research Use only

# Handling

| Format:          | Liquid   |
|------------------|--|
| Buffer:          | 100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles.   |
| Storage:         | -80 °C   |
| Storage Comment: | Store at -80°C.  |

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Expiry Date:

Unlimited (if stored properly)