

## TENM2 Protein, Human, Recombinant (His)

### General Information

Synonyms:	Ten-m2;KIAA1127;Teneurin-2;TNM2;ODZ2;Tenascin-M2;Ten-2
Protein Construction:	Gly401-Asn841
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NT68-1
Molecular Weight:	48.48 kDa (predicted). The protein cleaved to 55-65 kDa, 38-43 kDa and 25-30 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing PBS, 2 mM DTT (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu$ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### 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

Teneurin-2 is a member of a novel family of transmembrane proteins characterized to date in fish, birds, mammals, and *Drosophila* (e.g., the pair-rule gene product Ten-m). Teneurin-2, a vertebrate homologue of the *Drosophila* pair-rule gene ten-m/odz, is revealed to be a membrane-bound transcription regulator. In the nucleus, the intracellular domain of teneurin-2 colocalizes with promyelocytic leukemia (PML) protein in nuclear bodies implicated in transcription control.

### Reference

Bagutti C, et al. The intracellular domain of teneurin-2 has a nuclear function and represses zic-1-mediated transcription. *J Cell Sci.* 2003 Jul 15;116(Pt 14):2957-66. doi: 10.1242/jcs.00603. Epub 2003 Jun 3. PMID: 12783990.

Tucker RP, et al. Teneurin-2 is expressed in tissues that regulate limb and somite pattern formation and is induced in vitro and in situ by FGF8. *Dev Dyn.* 2001 Jan;220(1):27-39. doi: 10.1002/1097-0177(2000)9999:9999::AID-DVDY1084>3.0.CO;2-B. PMID: 11146505.

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