



**LD Biopharma, Inc.**  
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## **- PRODUCT DATA SHEET -**

**Name of Product:** Recombinant Human TMOD Protein  
**Catalog Number:** hRP-0769  
**Manufacturer:** LD Biopharma, Inc.

### **Introduction**

Human Tropomodulin-1 gene encodes a member of the tropomodulin family. The encoded protein is an actin-capping protein that regulates tropomyosin by binding to its N-terminus, inhibiting depolymerization and elongation of the pointed end of actin filaments and thereby influencing the structure of the erythrocyte membrane skeleton. Multiple transcript variants encoding the same protein have been found for this gene.

Full-length human TMOD (359aa) gene was constructed with 15aa N-terminal T7 tag and expressed in E.coli as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

<b>Gene Symbol:</b>	TMOD (D9S57E; ETMOD)
<b>Accession Number:</b>	NP_003266
<b>Species:</b>	Human
<b>Size:</b>	20 µg / Vial
<b>Composition:</b>	0.2 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
<b>Storage:</b>	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### **Key References**

Fang,L., et al., *Characterization of the human COP9 signalosome complex using affinity purification and mass spectrometry*. J. Proteome Res. 7 (11), 4914-4925 (2008)

Kong,K.Y. et al., *Leucine 135 of tropomodulin-1 regulates its association with*



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*tropomyosin, its cellular localization, and the integrity of sarcomeres.* J. Biol. Chem. 281 (14), 9589-9599 (2006)

Rho, S.B., et al., *The interaction between E-tropomodulin and thymosin beta-10 rescues tumor cells from thymosin beta-10 mediated apoptosis by restoring actin architecture.* FEBS Lett. 557 (1-3), 57-63 (2004)

## **Applications**

1. May be used for in vitro COP9 signalosome (CSN) regulation study with intracellular protein delivery of this protein.
2. As soluble/native protein, may be used as enzymatic substrate protein for ubiquitin assay.
3. May be used for mapping protein-protein interaction assay development.
4. May be used as antigen for specific antibody development and potential cancer diagnostic development.

## **Quality Control**

1. Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFMSYRRELEKYRDLDEDEILGALTEELRTLLENELDELDPDNALLPAGLR  
QKDQTTKAPTGPFKREELLDHLEKQAKEFKDREDLVPYTGEKRGKVWVPKQKPLDPVLESVTLE  
PELEEALANASDAELCDIAAILGMHTLMSNQYYQALSSSSIMNKEGLNSVIKPTQYKPVPDEE  
PNSTDVEETLERIKNNDPKLEEVLNLRNIRNIPITLKAYAEALKENSIVKKFSIVGTRSNPVA  
YALAEMLKENKVLKTLNVESNFI SGAGILRLVEALPYNTSLVEMKIDNQSQPLGNKVEMEIVSM  
LEKNATLLKFGYHFTQQGPRLRASAMNNNDLVRKRLADLTGPIIPKCRSGV