

Mouse THSD1 / TMTSP Protein (His Tag)

Catalog Number: 50400-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

TMTSP; UNQ3010; 4833423O18Rik; Tmtsp

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse THSD1 (NP_062522.1) (Met 1-Asn 412) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 25

Molecular Mass:

The secreted recombinant mouse THSD1 consists of 399 amino acids and has a calculated molecular mass of 45 kDa. As a result of glycosylation, the apparent molecular mass of rm THSD1 is approximately 60-70 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

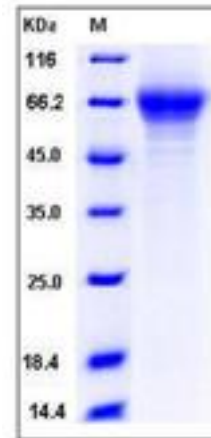
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Thrombospondin type-1 domain-containing protein 1, also known as transmembrane molecule with thrombospondin module, THSD1 and TMTSP, is a single-pass type I membrane protein which contains one TSP type-1 domain. THSD1 is a multi-domain, multi-functional glycoprotein synthesized by many cells. Matricellular THSD1 modulates cell adhesion and proliferation. It is involved in angiogenesis, inflammation, wound healing and cancer. In vitro, nanomolar concentrations of Thrombospondin-1 are required to alter endothelial and vascular smooth muscle cell adhesion, proliferation, motility, and survival. As a major platelet protein, for a long time it was postulated to control hemostasis via platelet aggregate stabilization. THSD1 is a potent angiogenesis inhibitor, and down-regulation of THSD1 has been suggested to alter tumor growth by modulating angiogenesis in a variety of tumor types.

References

1. Lawler J. (2002) Thrombospondin-1 as an endogenous inhibitor of angiogenesis and tumor growth. *J Cell Mol Med.* 6(1): 1-12.
2. Ren B, *et al.* (2006) Regulation of tumor angiogenesis by thrombospondin-1. *Biochim Biophys Acta.* 1765(2): 178-88.
3. Mirochnik Y, *et al.* (2008) Thrombospondin and apoptosis: molecular mechanisms and use for design of complementation treatments. *Curr Drug Targets.* 9(10): 851-62.

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