

Rat Thrombomodulin / THBD Protein (His Tag)

Catalog Number: 80348-R08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AHUS6; BDCA3; CD141; THPH12; THRM; TM; AI385582; CD141; TM

Protein Construction:

A DNA sequence encoding the rat THBD (O35370) (Met1-Ser517) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 90 % 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: Ile 17

Molecular Mass:

The recombinant rat THBD comprises 512 amino acids and predicts a molecular mass of 55.2 kDa. The apparent molecular mass of the recombinant protein is approximately 95 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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:

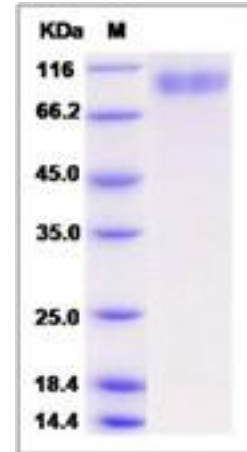
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Thrombomodulin, also known as THBD(CD141), is an integral membrane protein which reduces blood coagulation by converting thrombin to an anticoagulant enzyme from a procoagulant enzyme. Thrombomodulin is expressed on the surface of endothelial cells and serves as a cofactor for thrombin. It is also expressed on human mesothelial cell, monocyte and a dendritic cell subset. Thrombomodulin functions as a cofactor in the thrombin-induced activation of protein C in the anticoagulant pathway by forming a 1:1 stoichiometric complex with thrombin. Thrombomodulin also regulates C3b inactivation by factor I. Mutations in the thrombomodulin gene have also been reported to be associated with atypical hemolytic-uremic syndrome.

References

- 1.Dzionek A, *et al.* (2002) Plasmacytoid dendritic cells: from specific surface markers to specific cellular functions. *Hum Immunol.* 63(12):1133-48.
- 2.Dzionek A, *et al.* (2000) BDCA-2, BDCA-3, and BDCA-4: three markers for distinct subsets of dendritic cells in human peripheral blood. *J Immunol.* 165(11):6037-46.
- 3.Wen DZ, *et al.* (1987) Human thrombomodulin: complete cDNA sequence and chromosome localization of the gene. *Biochemistry.* 26(14):4350-7.

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