

## Active Native Rabbit Lung Thrombomodulin

Cat. No. THBD-306R Lot. No. (See product label)

### SPECIFICATION

**Species** Rabbit

**Source** Endothelial Cell Membrane

**Description**

Thrombomodulin (TM) is an integral membrane glycoprotein expressed on the surface of endothelial cells. Its discovery by Esmon and Owen has focused attention on the importance of the protein C anticoagulant pathway. TM serves as a cofactor for protein C activation by forming a 1:1 stoichiometric complex with thrombin (Kd=10-10M), which accelerates the rate of protein C activation by 1000-fold relative to the rate with thrombin alone. In addition to facilitating protein C activation, the binding of thrombin to TM drastically alters the procoagulant activity of thrombin. When bound to TM, thrombin no longer clots fibrinogen, activates factor V, inactivates protein S or triggers platelet aggregation. TM is a single chain protein composed of 5 distinct domains. The domain structure of TM is similar to the low density lipoprotein (LDL) receptor. A short cytoplasmic domain containing a free cysteine is located at the COOH-terminal end and is joined by a membrane spanning region to an O-glycosylation rich domain. The latter is followed by an epidermal growth factor (EGF) homology region and the NH2-terminal hydrophobic domain. The EGF homology region contains 6 EGF-like domains and contains the binding sites for both thrombin and protein C.

**Form** 20 mM Tris, 150 mM NaCl, 0.05% PDOC, pH 7.4

**Bio-activity** Protein C activation assay

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<b>Molecular Mass</b>	74000
<b>Purity</b>	>95% by SDS-PAGE. NOT tissue/cell culture grade. Not tested for endotoxin.
<b>Characteristic</b>	Extinction coefficient:8.8, Isoelectric point:2.5, Structure:Single chain, NH2-terminal hydrophobic domain, six EGF domains, one O-glycosylation rich domain, one transmembrane domain, COOH-terminal cytoplasmic domain
<b>Storage</b>	-80°C

## GENE INFORMATION

<b>Gene Name</b>	THBD thrombomodulin [ <i>Oryctolagus cuniculus</i> ]
<b>Official Symbol</b>	THBD
<b>Synonyms</b>	thrombomodulin
<b>Gene ID</b>	100008887
<b>mRNA Refseq</b>	NM_001082144
<b>Protein Refseq</b>	NP_001075613
<b>Chromosome Location</b>	chromosome: 4

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