

Active Recombinant Human THBD protein

Cat. No. THBD-31177TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human THBD was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	491 aa
Description	Thrombomodulin (TM, CD141, THBD) is an endothelial cell expressed transmembrane glycoprotein that can form a complex with the coagulation factor, Thrombin. The Thrombomodulin/Thrombin complex converts protein C to its activated form, protein Ca, which in turn proteolytically cleaves and deactivates factor Va and factor VIIIa, two essential components of the coagulation mechanism. This inactivation reduces the generation of additional thrombin and thereby effectively prevents continued coagulation. Reduced levels of Thrombomodulin can correlate with the pathogenesis of certain cardiovascular diseases, such as atherosclerosis and thrombosis. However, the serum levels of the truncated circulating form of Thrombomodulin are typically elevated during inflammation and in the presence of various inflammatory related diseases.
Form	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 7.5.
Bio-activity	Measured by its ability to activate protein C induced cleavage of the chromogenic substrate, BOC-Asp-Pro Arg-AMC in the presence of thrombin. The specific activity is

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greater than 500 pmoles/min/ug.

AA Sequence

APAEPQPGG SQCVEHDCF ALYPGPATF LNASQICDG LRGHLMTVR SSVAADVIS
 LLLNGDGGV GRRRLWIGL QLPPGCGDP KRLGPLRGF QWVTGDNNT
 SYSRWORLD LNGAPLCGP LCVAVSAAE ATPVSEPIW EEQQCEVKA DGFLCEFHF
 PATCRPLAV EPGAAAAAV SITYGTPFA ARGADFQAL PVGSSAAVA PLGLQLMCT
 APPGAVQGH WAREAPGAW DCSVENGGC EHACNAIPG APRCQCPAG
 AALQADGRS CTASATQSC NDLCEHFCV PNPDPQGSY SCMCETGYR
 LAADQHRCE DVDDCILEP SPCPQRCVN TQGGFECHC YPNYDLVDG
 ECVEPVDPC FRANCEYQC QPLNQTSYL CVCAEGFAP IPHEPHRCQ
 MFCNQTACP ADCDPNTQA SCECEGYI LDDGFICTD IDECENGGF CSGVCHNLP
 GTFECICGP DSALARHIG TDCDSGKVD GGDSGSGEP PPSPTPGST LTPPA

Endotoxin

Endotoxin level is < 0.1ng/ug of protein(<1 EU/ug)

Purity

Above 98% as determined by SDS-PAGE Analysis.

Storage

Stored at -20 centigrade

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended containing a carrier protein(example 0.1% BSA)and store in working aliquots at -20 centigrade to -80 centigrade.

GENE INFORMATION

Gene Name

THBD thrombomodulin [Homo sapiens]

Official Symbol

THBD

Synonyms

THBD; thrombomodulin; CD141; fetomodulin; CD141 antigen; TM; THRM; AHUS6; BDCA3; THPH12;

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Gene ID	7056
mRNA Refseq	NM_000361
Protein Refseq	NP_000352
MIM	188040
UniProt ID	P07204
Chromosome Location	20p12-cen
Pathway	Cell surface interactions at the vascular wall, organism-specific biosystem; Common Pathway, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; Formation of Fibrin Clot (Clotting Cascade), organism-specific biosystem; Hemostasis, organism-specific biosystem;
Function	calcium ion binding; protein binding; receptor activity; transmembrane signaling receptor activity;