

Thrombomodulin, Human CellExp™, Human Recombinant

CATALOG #: 7215-10 10 µg
7215-50 50 µg

ALTERNATE NAMES: CD141, BDCA-3, THBD, TM

SOURCE: HEK 293 cells

PURITY: ≥ 98% by SDS-PAGE gel and HPLC analyses

MOL. WEIGHT: 51.4 kDa

ENDOTOXIN LEVEL: < 0.1 ng/µg of protein (<1 EU/µg).

FORM: Lyophilized

FORMULATION: Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium phosphate, pH 7.5.

STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

DESCRIPTION:

Thrombomodulin (TM, CD141, and 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. Recombinant soluble Thrombomodulin is a 491 amino acid glycoprotein containing the extracellular domain of Thrombomodulin.

AMINO ACID SEQUENCE:

APAEPQPGGS QCV EHD CFAL YPGPATFLNA SQICDGLRGH LMTVRSSVAA
 DVISLLLNGD GVGRRRLWI GLQLPPGCGD PKRLGLPLRGF QWVTGDNNTS
 YSRWARLDLN GAPLCGPLCV AVSAAEATVP SEPIWEEQQC EVKADGFLCE
 FHFPATCRPL AVEPGAAAAA VSITYGTPFA ARGADFAQLP VGSSAAVAPL
 GLQLMCTAPP GAVQGHWARE APGAWDCSVE NNGCEHACNA IPGAPRCQCP
 AGAALQADGR SCTASATQSC NDLCEHFCVP NPDQPGSYSC MCETGYRLAA
 DQHRCEDVDD CILEPSPCPQ RCVNTQGGFE CHCYPNYDLV DGECEVPVDP
 CFRANCEYQC QPLNQTSYLC VCAEGFAPIP HEPHRCQMFC NQTACPADCD
 PNTQASCECP EGYLDDGFI CTDIDECENG GFCSGVCHNL PGTFECICGP
 DSALARHIGT DCDSGKVDGG DSGSGEPPPS PTPGSTLTTPP A

BIOLOGICAL 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 >500 pmoles/min/µg.

RELATED PRODUCTS:

- Factor Va, Human Plasma (Cat. No. 4098-50)
- PPACK Dihydrochloride (Cat. No. 1848-5)

FOR RESEARCH USE ONLY! Not to be used in humans.

