Thrombomodulin Human HEK293 cells

Product Data Sheet

Type: Recombinant
Source: HEK293 cells
Species: Human
Other names: CD141, BDCA-3, THBD, TM

Cat. No.:

RBG10315002	(2 µg)
RBG10315010	(10 µg)
RBG10315100	(100 µg)

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. The thrombomodulin protein contains 575 amino acids, including an 18 a.a. signal sequence, a 497 a.a. extracellular domain, a 24 a.a. transmembrane sequence, and a 36 a.a. cytoplasmic region. Recombinant soluble Human Thrombomodulin is a 491 amino acid glycoprotein containing the extracellular domain of thrombomodulin.

Research topic

Cardiovascular disease, Coronary artery disease, Oncology

Amino Acid Sequence

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APAEPQPGGS QCVEHDCFAL YPGPATFLNA SQICDGLRGH LMTVRSSVAA DVISLLLNGD GGVGRRRLWI GLQLPPGCGD
PKRLGPLRGF QWVTGDNNTS YSRWARLDLN GAPLCGPLCV AVSAAEATVP SEPIWEEQQC EVKADGFLCE FHFPATCRPL
AVEPGAAAAA VSITYGTPFA ARGADFQALP VGSSAAVAPL GLQLMCTAPP GAVQGHWARE APGAWDCSVE NGGCEHACNA
IPGAPRCQCP AGAALQADGR SCTASATQSC NDLCEHFCVP NPDQPGSYSC MCETGYRLAA DQHRCEDVDD CILEPSPCPQ
RCVNTQGGFE CHCYPNYDLV DGECVEPVDP CFRANCEYQC QPLNQTSYLC VCAEGFAPIP HEPHRCQMFC NQTACPADCD
PNTQASCECP EGYILDDGFI CTDIDECENG GFCSGVCHNL PGTFECICGP DSALARHIGT DCDSGKVDGG DSGSGEPPPS
PTPGSTLTPP A
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Source

HEK293 cells

Purity

98%

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 greater than 500 pmoles/min/ug.

Endotoxin

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

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 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.

Storage, Stability/Shelf Life

-20°C

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