



Recombinant Human Tissue factor

20201102DS



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-158aS
Size:	2 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	2152
Synonyms:	TF, TF1, Coagulation factor III, factor III, F3, Thromboplastin, CD142

Tissue factor is a transmembrane glycoprotein of the cytokine receptor superfamily that acts as a receptor for coagulation factor VII (FVII) to trigger initiation of the coagulation cascade in response to vascular injury. Expression of tissue factor occurs constitutively within most extravascular and perivascular cells and at high levels within critical organs and tissue. Tissue factor is not normally expressed freely on the surface of circulating blood cells due to its pro-coagulant effect, but is instead stored on the surface of mononuclear and endothelial cells in microparticles that can shed into circulation in response to vascular injury, pro-inflammatory cytokines, or microbial ligands. Tissue factor can also be shed into circulation by cancer cells where its expression in a number of cancer types has been linked to tumor progression, metastatic potential, thrombosis, and angiogenesis. Expression of tissue factor has been shown to be inducible by select cytokines in a number of cell types, including

IL-1 β and TNF- α in vascular endothelial cells and macrophages, and TNF- α , IL-6, and FGF-Basic in monocytes, among others. The CHO cell-derived Recombinant Human Tissue Factor is a glycoprotein homodimer comprised of the 227-amino-acid length monomer containing a C-terminal His-Tag. It has a calculated molecular weight of approximately 25.8 kDa, and as a result of glycosylation, Recombinant Human Tissue Factor migrates with an apparent molecular mass of approximately 40-50 kDa by SDS-PAGE gel.

Sequence

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SGTTNTVAAY NLTWKSTNEK TILEWEPKPV NQVYTVQIST
KSGDWKSKCF YTTDTECDLT DEIVKDVKQT YLARVFSYPA
GNVESTGSAG EPLYENSPEF TPYLETNLQQ PTIQSFEQVG
TKVNVTVVEDE RTLVRNNTF LSLRDVFGKD LIYTYLWKS
SSSGKKTAKT NTNEFLIDVD KGENYCFVSQ AVIPSRTVNR
KSTDSPVECM GGEKGEFREQ HHHHHHH
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Database References

Protein RefSeq:	NP_001984.1
Uniprot ID:	P13726
mRNA RefSeq:	NM_001993.4

Product Specifications

Expressed in	CHO cells
Purity	≥ 98% by SDS-PAGE gel and HPLC analyses.
Tag	His-Tag, C-term
Structural Information	homodimer, glycosylated
Endotoxin level	< 0.1 ng/µg of protein (<1EU/µg)
Formulation	lyophilized
Length (aa):	227
MW:	25.8 kDa



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Functional activity of Tissue Factor is determined by its ability to activate fluorogenic peptide substrate Boc-VPR-AMC cleavage, when bound in 1:1 complex with Coagulation Factor VII.