

# Recombinant human Coagulation Factor III/Tissue Factor protein

Catalog Number: ATGP1683

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

33-251aa

### UniProt No.

P13726

### NCBI Accession No.

NP\_001984

### Alternative Names

Tissue factor, CD142, TF, TFA

## PRODUCT SPECIFICATION

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### Molecular Weight

25.9 kDa (228aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% glycerol, 1mM DTT

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Tissue factor, also known as F3 or CD142, is a cell surface glycoprotein. This factor enables cells to initiate the blood coagulation cascades, and it functions as the high-affinity receptor for the coagulation factor VII. The resulting complex provides a catalytic event that is responsible for initiation of the coagulation protease cascades by specific limited proteolysis. Unlike the other cofactors of these protease cascades, which circulate as nonfunctional precursors, this factor is a potent initiator that is fully functional when expressed on cell surfaces. There are 3 distinct domains of this factor: extracellular, transmembrane, and cytoplasmic. This protein

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is the only one in the coagulation pathway for which a congenital deficiency has not been described. Recombinant human F3 protein, fused to His-tag at C-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

MSGTTNTVAA YNLTWKSTNF KTILEWEPKP VNQVYTVQIS TKSGDWKSKC FYTTDTECDL TDEIVKDKVQ TYLARVFSYP  
AGNVESTGSA GEPLYENSPE FTPYLETNLG QPTIQSFEQV GTKVNVTVED ERTLVRNNT FLSLRDVFGK DLIYTLYYWK  
SSSSGKKTAK TNTNEFLIDV DKGENYCFVS QAVIPSRTVN RKSTDSPVEC MGQEKGEFRE <LEHHHHHH>

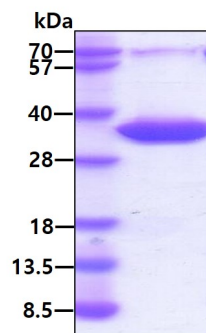
## General References

Bogdanov V., et al. (2003) *Nat. Med.* 9:458-462

Mackman N., et al. (1989) *Biochemistry.* 28:1755-1762

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.