

# Recombinant Human F10 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. F10-769H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

F10 MS Standard C13 and N15-labeled recombinant protein (NP\_000495) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

### Species

Human

### Source

HEK293

### Description

This gene encodes the vitamin K-dependent coagulation factor X of the blood coagulation cascade. This factor undergoes multiple processing steps before its preproprotein is converted to a mature two-chain form by the excision of the tripeptide RKR. Two chains of the factor are held together by 1 or more disulfide bonds; the light chain contains 2 EGF-like domains, while the heavy chain contains the catalytic domain which is structurally homologous to those of the other hemostatic serine proteases. The mature factor is activated by the cleavage of the activation peptide by factor IXa (in the intrinsic pathway), or by factor VIIa (in the extrinsic pathway). The activated factor then converts prothrombin to thrombin in the presence of factor Va, Ca<sup>2+</sup>, and phospholipid during blood clotting. Mutations of this gene result in factor X deficiency, a hemorrhagic condition of variable severity. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to generate mature polypeptides.

### Molecular Mass

54.7 kDa

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**AA Sequence**

MGRPLHLVLLSASLAGLLLLGESLFIRREQANNILARVTRANSFLEEMKKGHLERECM  
 EETCSYEEAREVFEDSDKTNEFWNKYKDGDCQETSPCQNQGKCKDGLGEYTCTCL  
 EGFEGKNCELFRKLCSLDNGDCDQFCHEEQNSVVCSCARGYTLADNGKACIPTG  
 PYPGKQTLERRKRSVAQATSSSGEAPDSITWKPYDAADLDPTENPFLLDFNQTT  
 PERGDNNLTRIVGGQECKDGECPWQALLINEENEGFCGGTILSEFYILTAHCLYQA  
 KRFKVRVGDNRNTEQEEGGEAVHEVEVVIKHNRFKETYDFDIAVLRRLKTPITFRMNV  
 APACLPERDWAESTLMTQKTGIVSGFGRTHEKGRQSTRLKMLEVPYVDRNSCKLSS  
 SFIITQNMFCAGYDTKQEDACQGDSGGPHVTRFKDTYFVTGIVSWGEGCARKGKY  
 GIYTKVTAFLKWIDRSMKTRGLPKAKSHAPEVITSSPLKTRTRPLEQKLISEEDLAAND  
 ILDYKDDDDKV

**Purity** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Stability** Stable for 3 months from receipt of products under proper storage and handling conditions.

**Storage** Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

**Concentration** 50 µg/mL as determined by BCA

**Storage Buffer** 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

## GENE INFORMATION

**Gene Name** F10 coagulation factor X [ Homo sapiens (human) ]

**Official Symbol** F10

**Synonyms** F10; coagulation factor X; factor Xa; prothrombinase; Stuart-Prower factor; FX; FXA;

**Gene ID** 2159

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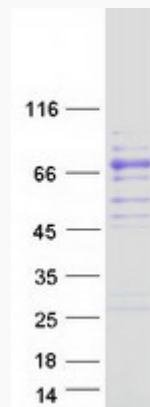
mRNA Refseq [NM\\_000504](#)

Protein Refseq [NP\\_000495](#)

MIM [613872](#)

UniProt ID [P00742](#)

SDS-PAGE



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