Coagulation Factor VII (F7) Homo Sapiens (Human) Recombinant Protein

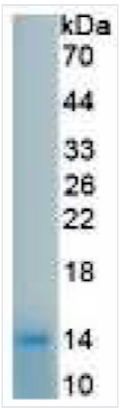
PRODUCT OVERVIEW

Product Name	Coagulation Factor VII (F7), Recombinant Protein
Full Product Name	Recombinant Coagulation Factor VII (F7)
Product Gene Name	F7 recombinant protein
Host	E.coli
Species Reactivity	Homo sapiens (Human)
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose
Purity/Purification	> 80%
Concentration	Original Concentration: 50ug/mL (lot specific)
Preparation and Storage	**Storage:** Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. **Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: F7 (MBS2002805) Immunogen: F7 (MBS2010224)
Matching Pairs	Biotin Conjugated Antibody: F7 (MBS2004023) Immunogen: F7 (MBS2010224)
Matching Pairs	Unconjugated Antibody: F7 Clone #1# (MBS2025838) Immunogen: F7 (MBS2010224)
Matching Pairs	APC-CY7 Conjugated Antibody: F7 (MBS2060112) Immunogen: F7 (MBS2010224)
Matching Pairs	APC-CY7 Conjugated Antibody: F7 Clone #1# (MBS2060113) Immunogen: F7 (MBS2010224)
Matching Pairs	PE Conjugated Antibody: F7 (MBS2060114) Immunogen: F7 (MBS2010224)
Matching Pairs	PE Conjugated Antibody: F7 Clone #1# (MBS2060115) Immunogen: F7 (MBS2010224)
Matching Pairs	APC Conjugated Antibody: F7 (MBS2060116) Immunogen: F7 (MBS2010224)
Matching Pairs	APC Conjugated Antibody: F7 Clone #1# (MBS2060117) Immunogen: F7 (MBS2010224)
Matching Pairs	Cy3 Conjugated Antibody: F7 (MBS2060118) Immunogen: F7 (MBS2010224)
Matching Pairs	Cy3 Conjugated Antibody: F7 Clone #1# (MBS2060119) Immunogen: F7 (MBS2010224)

Matching Pairs	FITC Conjugated Antibody: F7 (MBS2060120) Immunogen: F7 (MBS2010224)
Matching Pairs	FITC Conjugated Antibody: F7 Clone #1# (MBS2060121) Immunogen: F7 (MBS2010224)
Matching Pairs	HRP Conjugated Antibody: F7 (MBS2060122) Immunogen: F7 (MBS2010224)
Matching Pairs	HRP Conjugated Antibody: F7 Clone #1# (MBS2060123) Immunogen: F7 (MBS2010224)
Matching Pairs	Biotin Conjugated Antibody: F7 Clone #1# (MBS2091103) Immunogen: F7 (MBS2010224)
Molecular Weight	Predicted Molecular Mass: 14.5kDa Accurate Molecular Mass: 14kDa as determined by SDS-PAGE reducing conditions.
Chromosome Location	Chromosome: 13; NC_000013.10 (113760102..113774995). Location: 13q34
OMIM	227500
3D Structure	ModBase 3D Structure for P08709
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Source	Prokaryotic expression
Residues	Ala334~Arg452
Tags	N-terminal His Tag
Subcellular Location	Secreted
Traits	Freeze-dried powder
Predicted isoelectric point	7.8
Usage	Reconstitute in ddH2O to a concentration of 0.1-0.2 mg/mL. Do not vortex.
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for F7 recombinant protein	Positive Control; Immunogen; SDS-PAGE; Western Blot (WB).
Application Notes for F7 recombinant protein	(May be suitable for use in other assays to be determined by the end user.)
Related Product Information for F7 recombinant protein	MBS2010224 is a recombinant protein targeting F7. Also known as Recombinant Coagulation Factor VII (F7). Reactive in Homo sapiens (Human). Host: E.coli.
Other Notes	Small volumes of F7 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

AFVRFSL VSGWGQLLDR GATALELMVL
NVPRLMTQDC LQQSRKVGDS PNITEYMFCA GYSDGSKDSC KGDSGGPHAT HYRGTWYLTG
IVSWGQGCAT VGHFGVYTRV SQYIEWLQKL MR

Sequence of F7 recombinant protein



SDS-PAGE of F7 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for F7. It may not necessarily be applicable to this product.

NCBI GI #	4503645
NCBI GeneID	2155
NCBI Accession #	NP_000122.1
UniProt Primary Accession #	P08709
UniProt Secondary Accession #	Q14339; Q5JVF1; Q5JVF2; Q9UD52; Q9UD53; Q9UD54; B0YJC8
UniProt Related Accession #	P08709
GenBank Nucleotide #	NM_000131.4
NCBI Official Full Name	coagulation factor VII isoform a preproprotein
NCBI Official Synonym Full Names	coagulation factor VII (serum prothrombin conversion accelerator)
NCBI Official Symbol	F7
NCBI Official Synonym Symbols	SPCA
UniProt Protein Name	Coagulation factor VII
UniProt Synonym Protein Names	Proconvertin; Serum prothrombin conversion accelerator
Protein Family	Coagulation factor
UniProt Gene Name	F7
UniProt Synonym Gene Names	SPCA
UniProt Entry Name	FA7_HUMAN
NCBI Protein Information	coagulation factor VII; eptacog alfa; proconvertin; FVII coagulation protein
NCBI Summary for F7	This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX to factor IXa and/or factor X to factor Xa. Defects in this gene can cause coagulopathy. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to generate mature polypeptides. [provided by RefSeq, Aug 2015]

UniProt Comments for F7	F7: Initiates the extrinsic pathway of blood coagulation. Serine protease that circulates in the blood in a zymogen form. Factor VII is converted to factor VIIa by factor Xa, factor XIIa, factor IXa, or thrombin by minor proteolysis. In the presence of tissue factor and calcium ions, factor VIIa then converts factor X to factor Xa by limited proteolysis. Factor VIIa will also convert factor IX to factor IXa in the presence of tissue factor and calcium. Defects in F7 are the cause of factor VII deficiency (FA7D). A hemorrhagic disease with variable presentation. The clinical picture can be very severe, with the early occurrence of intracerebral hemorrhages or repeated hemarthroses, or, in contrast, moderate with cutaneous-mucosal hemorrhages (epistaxis, menorrhagia) or hemorrhages provoked by a surgical intervention. Finally, numerous subjects are completely asymptomatic despite very low factor VII levels. Belongs to the peptidase S1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Apoptosis; Secreted, signal peptide; Secreted; Motility/polarity/chemotaxis; EC 3.4.21.21; Protease Chromosomal Location of Human Ortholog: 13q34 Cellular Component: extracellular space; Golgi lumen; endoplasmic reticulum lumen; plasma membrane; extracellular region; vesicle Molecular Function: protein binding; serine-type peptidase activity; serine-type endopeptidase activity; calcium ion binding; glycoprotein binding; receptor binding Biological Process: circadian rhythm; positive regulation of protein kinase B signaling cascade; organ regeneration; blood coagulation, extrinsic pathway; cellular protein metabolic process; positive regulation of blood coagulation; positive regulation of positive chemotaxis; response to vitamin K; response to estrogen stimulus; positive regulation of leukocyte chemotaxis; post-translational protein modification; proteolysis; blood coagulation; peptidyl-glutamic acid carboxylation; positive regulation of cell migration Disease: Myocardial Infarction, Susceptibility To; Factor Vii Deficiency
Research Articles on F7	**1.** Data indicate that nanobilayers containing phosphatidic acid (PA) bound substantially more of two proteins, factor VIIa and activated protein C, than did equivalent bilayers containing phosphatidylserine (PS).
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