
Recombinant Human Coagulation Factor VII / FVII / F7 Protein (His tag)**Cat.NO.: TP07445**

3th Edition

Synonyms:Coagulation factor 7;Coagulation factor VII;SPCA

Description:Coagulation factor VII, also known as Serum prothrombin conversion accelerator, Factor VII, F7 and FVII, is a member of the peptidase S1 family. Factor VII is one of the central proteins in the coagulation cascade. It is an enzyme of the serine protease class, and Factor VII (FVII) deficiency is the most frequent among rare congenital bleeding disorders. Factor VII contains two EGF-like domains, one Gla (gamma-carboxy-glutamate) domain and one peptidase S1 domain. The main role of factor VII is to initiate the process of coagulation in conjunction with tissue factor (TF). Tissue factor is found on the outside of blood vessels, normally not exposed to the blood stream. The action of the Factor VII is impeded by tissue factor pathway inhibitor (TFPI), which is released almost immediately after initiation of coagulation. Factor VII is vitamin K dependent and is produced in the liver. Upon vessel injury, tissue factor is exposed to the blood and circulating Factor VII. Once bound to TF, FVII is activated to FVIIa by different proteases, among which are thrombin (factor IIa), factor Xa, IXa, XIIa, and the FVIIa-TF complex itself. Recombinant activated factor VII (rFVIIa) is a haemostatic agent, which was originally developed for the treatment of haemophilia patients with inhibitors against factor FVIII or FIX. FVIIa binds specifically to endothelial protein C receptor (EPCR), a known cellular receptor for protein C and activated protein C, on the endothelium. rFVIIa is a novel hemostatic agent, originally developed for the treatment of hemorrhage in hemophiliacs with inhibitors, which has been successfully used recently in an increasing number of nonhemophilic bleeding conditions.

Form:PBS**Molecular Weight:**46.5 kDa**Sequences:**Met 1-Pro 444**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.