

Human Coagulation factor VII /F7 Protein (pro form)

Cat. No. CF7-HM107

Description

Source	Recombinant Human Coagulation factor VII /F7 Protein (pro form) is expressed from HEK293 with His tag at the C-terminus. It contains Ala61-Pro466.
Accession	P08709-1
Molecular Weight	The protein has a predicted MW of 46.69 kDa. Due to glycosylation, the protein migrates to 52-65 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 85% as determined by HPLC

Formulation and Storage

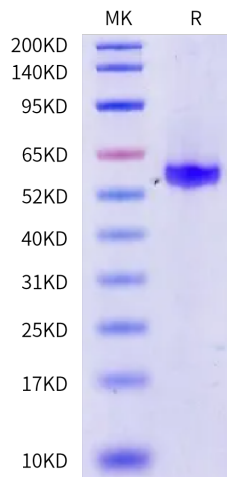
Formulation	Lyophilized from 0.22 µm filtered solution in 20mM NaAC, 150mM NaCl (pH 5.0). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in 20mM NaAC (pH 5.0). Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Factor VII is the coagulation protease responsible for starting a cascade of proteolytic events that lead to thrombin generation, fibrin deposition, and platelet activation. The FVII protein also contains two epidermal growth factor-like (EGF-like) domains and an activation peptide with a glycosylated asparagine that provides a proteolytic cleavage site. The catalytic regions exhibit the serine protease activity, which leads to various functions of the protein[18]. The role of FVII in the pathogenesis of various cancers has extensively been studied.

Assay Data

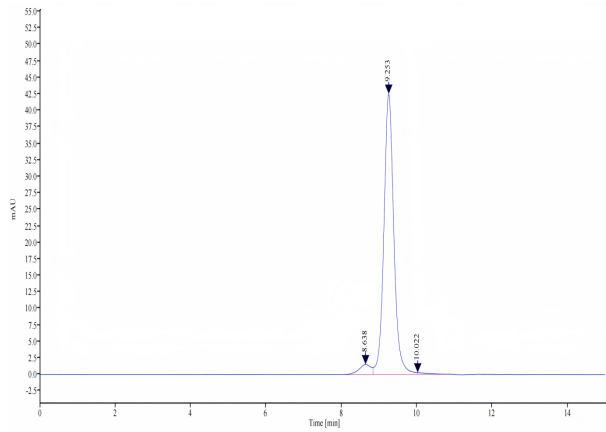
Bis-Tris PAGE



Human Coagulation factor VII on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data



The purity of Human Coagulation factor VII is greater than 85% as determined by SEC-HPLC.

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Assay Data

Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate Boc-VPR-AMC. The specific activity is >80 pmol/min/μg.