

Rat Coagulation Factor II Protein

Cat. No. CFR-RM102

Description

Source	Recombinant Rat Coagulation Factor II Protein is expressed from HEK293 with His tag at the C-terminal. It contains Gln25-Arg617.
Accession	NP_075213.2
Molecular Weight	The protein has a predicted MW of 69.12 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

Formulation and Storage

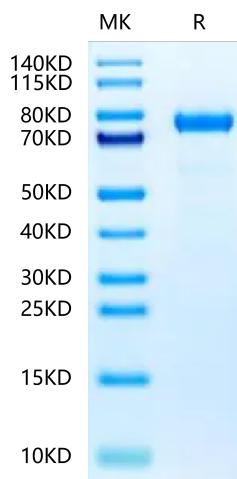
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Prothrombin, or coagulation factor II, is a multidomain zymogen precursor of thrombin that undergoes an allosteric equilibrium between two alternative conformations, open and closed, that react differently with the physiological activator prothrombinase. It has 10 sites of gamma-carboxylation, which are required for its bioactivity, and is N-glycosylated at three of four putative sites.

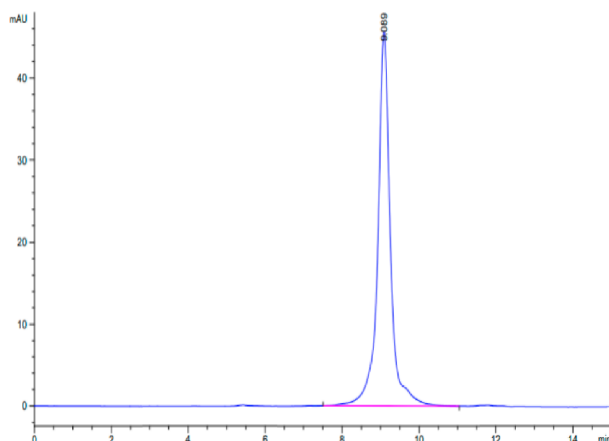
Assay Data

Tris-Bis PAGE



Rat Coagulation Factor II on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Rat Coagulation Factor II is greater than 95% as determined by SEC-HPLC.