Recombinant Human Coagulation Factor XI/F11 Protein (His Tag)

Catalog Number:PKSH031696

Note: Centrifuge before opening to ensure complete recovery of vial contents.

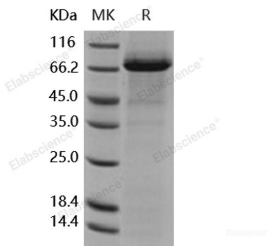
Description

Synonyms	coagulation factor 11;coagulation factor XI;FXI
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Val 625
Accession	NP_000119.1
Calculated Molecular Weight	69.5 kDa
Observed molecular weight	75-80 kDa
Tag	C-His
Bioactivity	Measured by its ability to cleave the fluorogenic peptide substrate, t-butyloxycarbonyl-Ile-Glu-Gly-Arg-7-amido-4-methylcoumarin (Boc-IEGR-AMC). The specific activity is > 100 pmoles/min/μg. (Activation description: The proenzyme needs to be activated by Thermolysin for an activated form)

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Factor XI (plasma thromboplastin antecedent) is a plasma glycoprotein, and a zymogen acting as a serine protease which participates in blood coagulation as a catalyst in the conversion of factor IX to factor IXa in the presence of calcium ions. It is an unusual dimeric protease, with structural features that distinguish it from vitamin K-dependent coagulation proteases. The factor XI is synthesized in the liver as a single polypeptide chain with a molecular weight estimated

For Research Use Only

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
Web: www.elabscience.com Email: techsupport@elabscience.com

between 125 ~160 kDa and then is processed into a disulfide-bond linked homodimer. FXI is a homodimer, with each subunit containing four apple domains and a protease domain. The apple domains form a disk structure with binding sites for platelets, high molecular weight kininogen, and the substrate factor IX (FIX). FXI is converted to the active protease FXIa by cleavage of the Arg369-Ile370 bond on each subunit. After the activation reaction, Factor XIa is composed of two heavy and two light chains held together by three disulfide bonds. The heavy chains are derived from the amino termini of the zymogen and responsible for the binding of factor XI to high molecular weight kininogen and for the activation of factor IX, while the light chain contains the catalytic portion of the enzyme and is homologous to the trypsin family of serine proteases. FXI deficiency is a disorder characterized by a mild or no bleeding tendency. Severe FXI deficiency is an injury-related bleeding disorder common in Ashkenazi Jews and rare worldwide.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017

Web: www.elabscience.com Email: techsupport@elabscience.com