Datasheet for ABIN7317924

Factor XI Protein (His tag)

Go to Product page

Overview

Quantity:	50 µg
Target:	Factor XI (F11)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Factor XI protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Coagulation Factor XI/F11 Protein (His Tag)(Active)
Sequence:	Met 1-Val 625
Characteristics:	A DNA sequence encoding the human F11 (NP_000119.1) precursor (Met 1-Val 625) with a carboxy-terminal polyhistidine tag was expressed.
Purity:	> 85 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	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)

Target Details

Target:	Factor XI (F11)
Alternative Name:	Coagulation Factor XI/F11 (F11 Products)
Background:	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 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. Synonym: coagulation factor 11,coagulation factor XI,FXI
Molecular Weight:	69.5 kDa
NCBI Accession:	NP_000119

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Handling

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

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