9051 Mira Mesa Blvd, #910094
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F9 Human

Coagulation Factor IX Human
NTP0025

Product Overview

Name	F9 Human

Description

Coagulation Factor IX Human

Synonyms

Coagulation factor IX, EC 3.4.21.22, Christmas factor, Plasma thromboplastin component, PTC, F9, FIX, HEMB, MGC129641, MGC129642, GLA domain, Factor IX.

Introduction

Human Factor IX also called Christmas-Factor is a glycoprotein, which is synthesized in the liver and belongs to the serine proteases system and is part of the S1 peptidase family. Lack of Factor-IX causes Hemophilia-B meaning Christmas Disease. Factor-IX has a N-terminus region which contains 12xGla residues which asist the calcium dpendant binding of Factor-IX to the phospholipid surface. Factor-IX is activated by either factor XIa or the factor VIIa/tissue factor/phospholipid complex. Cleavage yields the intermediate IXa, which is subsequently converted to the fully active form IXab. Factor-IX binds initially to exosites on the factor XIa heavy chain, followed by interaction at the active site with subsequent bond cleavage. Coagulation factor IX is activated by interaction with the erythrocyte membrane, causing intrinsic coagulation. Chaperones & lectins act simultaniously to guarantee the proper folding of Factor-IX and the retention of mutant molecules. Human Factor IX, activated by either the Contact or Tissue Factor Pathway, is responsible for the activation of Factor X to Xa.

Source

Human Plasma.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The Factor-IX was lyophilized from a sterile solution containing 20mM Tris-HCl pH-7.4, 0.1M NaCl and 1mM Benzamidine.

Stability

Lyophilized Factor-IX although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Factor-IX should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

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Purity

Greater than 95.0% as determined by SDS-PAGE.

Biological Activity

The activity per mg was tested and found to be 306.5 PEU/mg.

Solubility

It is recommended to reconstitute the lyophilized 100U Factor-IX in sterile 100 µl of 18MΩ-cm H2O, which can then be further diluted to other aqueous solutions.

Human Virus Test

Human plasma was tested and found negative for HIV-1, HIV-2, Hepatitis B Surface antigen and HCV. Donors are screened for CJD (Creutzfeldt-Jakob Disease).

Precautions

F9 Human is for research use only and not for use in diagnostic or therapeutic procedures.