

Coagulation factor IX/F9 Protein, Human (HEK293, His)

Cat. No.:	HY-P70231
Synonyms:	rHuCoagulation factor IX/F9, His; F9; Coagulation factor IX; Christmas factor; Plasma thromboplastin component; Coagulation factor IXa light chain; Coagulation factor IXa heavy chain
Species:	Human
Source:	HEK293
Accession:	P00740 (T29-T461)
Gene ID:	2158
Molecular Weight:	60-90 kDa

PROPERTIES

AA Sequence	<pre> T V F L D H E N A N K I L N R P K R Y N S G K L E E F V Q G N L E R E C M E E K C S F E E A R E V F E N T E R T T E F W K Q Y V D G D Q C E S N P C L N G G S C K D D I N S Y E C W C P F G F E G K N C E L D V T C N I K N G R C E Q F C K N S A D N K V V C S C T E G Y R L A E N Q K S C E P A V P F P C G R V S V S Q T S K L T R A E T V F P D V D Y V N S T E A E T I L D N I T Q S T Q S F N D F T R V V G G E D A K P G Q F P W Q V V L N G K V D A F C G G S I V N E K W I V T A A H C V E T G V K I T V V A G E H N I E E T E H T E Q K R N V I R I I P H H N Y N A A I N K Y N H D I A L L E L D E P L V L N S Y V T P I C I A D K E Y T N I F L K F G S G Y V S G W G R V F H K G R S A L V L Q Y L R V P L V D R A T C L R S T K F T I Y N N M F C A G F H E G G R D S C Q G D S G G P H V T E V E G T S F L T G I I S W G E E C A M K G K Y G I Y T K V S R Y V N W I K E K T K L T </pre>
Biological Activity	<p>1. Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂. Read at excitation and emission wavelengths of 320 nm and 405 nm (top read). The specific activity is >200 pmol/min/μg, as measured under the described conditions.</p> <p>2. Measured by its ability to cleave the peptide substrate Z-D-Arg-Gly-Arg-pNA and the specific activity is >20 pmol/min/ug. (Activate human Coagulation factor IX with Thermolysin in Assay Buffer, 37°C, 90 min.)</p>
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 10% Glycerol, pH 8.0 or PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

Coagulation factor IX, also known as F9, is a vitamin K-dependent plasma protein crucial for blood coagulation, particularly in the intrinsic pathway. This protein plays a pivotal role in converting factor X to its active form in the presence of Ca²⁺ ions, phospholipids, and factor VIIIa. As a key component of the coagulation cascade, factor IX contributes to the formation of a stable blood clot, preventing excessive bleeding. The described mechanism highlights the intricate interplay of factor IX with other coagulation factors and cofactors, underscoring its essential role in maintaining hemostasis.

Caution: Product has not been fully validated for medical applications. For research use only.

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