

Recombinant Human Coagulation Factor VIII, Procoagulant Component

Cat. No. F8-125H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human F8 lacks central region of B-domain region and is purified by proprietary chromatographic techniques.
Species	Human
Source	CHO
Description	This gene encodes coagulation factor VIII, which participates in the intrinsic pathway of blood coagulation; factor VIII is a cofactor for factor IXa which, in the presence of Ca ²⁺ and phospholipids, converts factor X to the activated form Xa. This gene produces two alternatively spliced transcripts. Transcript variant 1 encodes a large glycoprotein, isoform a, which circulates in plasma and associates with von Willebrand factor in a noncovalent complex. This protein undergoes multiple cleavage events. Transcript variant 2 encodes a putative small protein, isoform b, which consists primarily of the phospholipid binding domain of factor VIIIc. This binding domain is essential for coagulant activity. Defects in this gene results in hemophilia A, a common recessive X-linked coagulation disorder.
Molecular Mass	Antihemophilic Factor Human Recombinant produced in CHO is a glycosylated polypeptide chain having a total amino acids of 1438 (170kd) and consisting of two dimer chains 80 kD and 90 kD.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.

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Formulation	The protein was lyophilized from a solution containing 50mM histidine, 0.3M NaCl, 5mM CaCl ₂ , 0.02% Tween 80, 20mM sucrose, pH- 6.8.
Purity	Greater than 97.0% as determined by SDS-PAGE.
Solubility	It is recommended to reconstitute the lyophilized Factor-VIII in 1ml sterile 18MΩ-cm H ₂ O, which can then be further diluted to other aqueous solutions.
Biological Activity	The specific activity was found to be 7428IU/mg.
Stability	Lyophilized Factor-VIII although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Factor-VIII should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles
OfficialSymbol	F8
GENE INFORMATION	
Gene Name	F8 coagulation factor VIII, procoagulant component [Homo sapiens]
Synonyms	F8; coagulation factor VIII, procoagulant component; AHF; F8B; F8C; HEMA; FVIII; DXS1253E; Factor VIIF8B; hemophilia A; Antihemophilic factor; Procoagulant component; coagulation factor VIII; coagulation factor VIIfc; coagulation factor VIII; OTTHUMP00000061446; OTTHUMP00000196174; Coagulation factor VIII; Factor VIIla heavy chain, 200 kDa isoform; Factor VIIla heavy chain, 92 kDa isoform; Factor VIII B chain; Factor VIIla light chain
Gene ID	2157
mRNA Refseq	NM_000132

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Protein Refseq	NP_000123
MIM	300841
UniProt ID	P00451
Chromosome Location	Xq28
Pathway	Complement and coagulation cascades; Hemostasis
Function	copper ion binding; oxidoreductase activity; protein binding

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