ARG83281
Human Factor VII ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG83281 Human Factor VII ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Factor VII in Serum, Plasma and Cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	Factor VII
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	25 pg/ml
Detection Range	0.78 ng/ml - 50 ng/ml
Sample Type	Serum, Plasma and Cell culture supernatants
Precision	Intra-Assay CV: 6.5% Inter-Assay CV: 5.5%
Alternate Names	Eptacog alfa; Coagulation factor VII; SPCA; Serum prothrombin conversion accelerator; EC 3.4.21.21; Proconvertin

Application Instructions

Assay Time	~ 5 hours

Properties

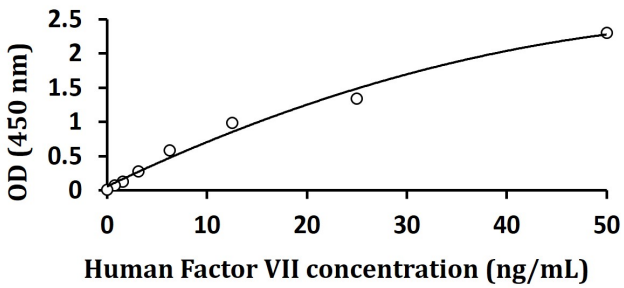
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	F7
Gene Full Name	coagulation factor VII (serum prothrombin conversion accelerator)
Background	This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX

	to factor IXa and/or factor X to factor Xa. Defects in this gene can cause coagulopathy. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to generate mature polypeptides. [provided by RefSeq, Aug 2015]
Function	Initiates the extrinsic pathway of blood coagulation. Serine protease that circulates in the blood in a zymogen form. Factor VII is converted to factor VIIa by factor Xa, factor XIIa, factor IXa, or thrombin by minor proteolysis. In the presence of tissue factor and calcium ions, factor VIIa then converts factor X to factor Xa by limited proteolysis. Factor VIIa will also convert factor IX to factor IXa in the presence of tissue factor and calcium. [UniProt]
PTM	The vitamin K-dependent, enzymatic carboxylation of some glutamate residues allows the modified protein to bind calcium. The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains. O- and N-glycosylated. N-glycosylation at Asn-205 occurs cotranslationally and is mediated by STT3A-containing complexes, while glycosylation at Asn-382 is post-translational and is mediated STT3B-containing complexes before folding. O-fucosylated by POFUT1 on a conserved serine or threonine residue found in the consensus sequence C2-X(4,5)-[S/T]-C3 of EGF domains, where C2 and C3 are the second and third conserved cysteines. Can be either O-glucosylated or O-xylosylated at Ser-112 by POGLUT1 in vitro. [UniProt]
Cellular Localization	Secreted. [UniProt]

Images



ARG83281 Human Factor VII ELISA Kit standard curve image

ARG83281 Human Factor VII ELISA Kit results of a typical standard run with optical density reading at 450 nm.