ARG81113
Human Factor XII (total) ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG81113 Human Factor XII (total) ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Factor XII (total) in plasma.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Factor XII
Conjugation	HRP
Conjugation Note	TMB substrate is used for color development at 450 nm.
Sensitivity	0.137 ng/ml
Sample Type	Plasma
Standard Range	0.5 - 100 ng/ml
Alternate Names	Hageman factor; Coagulation factor XII; HAF; EC 3.4.21.38; HAEX; Beta-factor XIIa part 2; HAE3

Properties

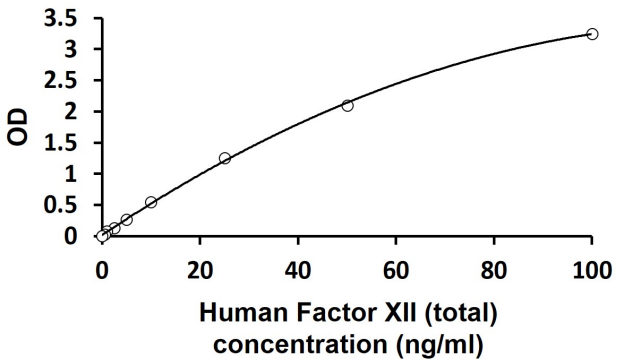
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory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

Bioinformation

Database links	GeneID: 2161 Human Swiss-port # P00748 Human
Gene Symbol	F12
Gene Full Name	coagulation factor XII (Hageman factor)
Background	This gene encodes coagulation factor XII which circulates in blood as a zymogen. This single chain zymogen is converted to a two-chain serine protease with an heavy chain (alpha-factor XIIa) and a light chain. The heavy chain contains two fibronectin-type domains, two epidermal growth factor (EGF)-like domains, a kringle domain and a proline-rich domain, whereas the light chain contains only a catalytic domain. On activation, further cleavages takes place in the heavy chain, resulting in the production of beta-factor XIIa light chain and the alpha-factor XIIa light chain becomes beta-factor XIIa heavy chain. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then to beta-factor XIIa. The active factor XIIa participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. It activates coagulation factors VII and XI. Defects in this gene do not cause any clinical symptoms and the sole effect is that whole-blood clotting time is prolonged. [provided by RefSeq, Jul 2008]
Function	Factor XII is a serum glycoprotein that participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. Prekallikrein is cleaved by factor XII to form

	kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then trypsin cleaves it to beta-factor XIIa. Alpha-factor XIIa activates factor XI to factor XIa. [UniProt]
Highlight	Related products: Factor XII antibodies; Factor XII ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
Research Area	Cell Biology and Cellular Response kit; Immune System kit
PTM	Factor XII is activated by kallikrein in alpha-factor XIIa, which is further converted by trypsin into beta-factor XIIa. Alpha-factor XIIa is composed of an NH2-terminal heavy chain, called coagulation factor XIIa heavy chain, and a COOH-terminal light chain, called coagulation factor XIIa light chain, connected by a disulfide bond. Beta-factor XIIa is composed of 2 chains linked by a disulfide bond, an N-terminal nonapeptide, called beta-factor XIIa part 1, and coagulation factor XIIa light chain, also known in this context as beta-factor XIIa part 2. O- and N-glycosylated. The O-linked polysaccharides were not identified, but are probably the mucin type linked to GalNAc.

Images



ARG81113 Human Factor XII (total) ELISA Kit standard curve image

ARG81113 Human Factor XII (total) ELISA Kit results of a typical standard run with optical density reading at 450 nm.