

Coagulation factor XII ELISA Kit | F12 elisa kit

Coagulation factor XII, Human, ELISA kit

CATALOG # AAA77812	REACTIVITY HumanDoes not react: Mouse - No, Pig, Rat
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PRODUCT SYNONYMS

Coagulation factor XII; Human; ELISA kit; Hageman factor; Coagulation Factor XII Human ELISA kit 1 x 96 det.; F12 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human Does not react: Mouse - No, Pig, Rat
Sequence Length	237
Samples	Plasma and serum
Preparation and Storage	Product should be stored at 4 degree C. Under recommended storage conditions, product is stable for at least six months.

ADDITIONAL INFORMATION

Related Product Information for F12 elisa kit	Intended Uses: The human coagulation factor XII ELISA kit is to be used for the in vitro quantitative determination of coagulation factor XII in plasma and serum. This kit is intended for laboratory research use only. The analysis should be performed by trained laboratory professionals. Background/Introduction: FXII is a serine protease and plays a role in blood coagulation, fibrinolysis, kinin and complement systems. The protein is the zymogen of the serine protease factor XIIa (FXIIa). FXII is converted to FXIIa through autoactivation induced by contact to charged surfaces, also known as the plasma contact system. FXII is predominantly synthesized in the liver and is composed of fibronectin type I and II domains, two epidermal growth factor-like domains, a kringle region, a proline-rich domain and a catalytic domain. Its molecular weight is approximately 80kDa on SDS-PAGE gel electroforeses. The protein circulates in the plasma at a concentration of 30-35 ug/ml. FXII forms the plasma contact system together with high molecular weight kininogen and plasma kallikrein. FXII autoactivates when these three proteins form a complex on negatively charged nonphysiological surfaces, like inorganic surfaces (eg silicon tubes) or macromolecular organic surfaces (eg heparin) bound to the surface of different cell types, including endothelial cells, platelets and neutrophils. It can trigger blood coagulation and generation of proinflammatory bradykinin. After surface complexation, FXII autoactivates into FXIIa, also called factor XII fragment(XII_f). Once small amounts of kallikrein are formed a positive feedback loop is active leading to enhanced conversion into FXIIa. The activation leads to a series of active enzyme formation. FXIIa converts prekallikrein to kallikrein and kallikrein digests kinogen to liberate proinflammatory bradykinin. Bradykinin triggers inflammatory reactions via activating endothelial cells resulting in vasodilatation, increased vascular permeability and production of other mediators like nitric oxide. The contact system has the ability to activate the complement system via the classical pathway. Simultaneous activation of both systems may lead to pathological conditions, like hereditary angioedema in individuals with dysfunctional C1-inhibitor (C1-IHB). FXIIa can activate complement protein C1r and to a lesser degree C1s in absence of C1-IHB. This leads to unimpeded bradykinin formation resulting in angioedema. Other interactions with complement system are found on the level of gC1qR and MASP-1.
Product Categories/Family for F12 elisa kit	Cardiology and metabolism
References	1. Madsen DE et al; ELISA for determination of total coagulation factor XII concentration inHuman plasma. J Immunol Methods, 2013, 394: 32-9

NCBI AND UNIPROT INFORMATION

NCBI GI #	903736
NCBI GeneID	2161
NCBI Official Full Name	coagulation factor XII, partial
NCBI Official Synonym Full Names	coagulation factor XII
NCBI Official Symbol	F12
NCBI Official Synonym Symbols	HAF; HAE3; HAEX
NCBI Protein Information	coagulation factor XII

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/human-mouse-pig-rat-elisa-kits/coagulation-factor-xii/77812>