

Native Human F12

Cat. No. F12-28805TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview Purified full length native human Factor XII protein (MW 80kDa), prepared from fresh frozen plasma

Species Human

Description 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.

Form Liquid

Purity Immunogen affinity purified

Storage buffer Preservative: None Constituents: 50% Glycerol

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Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the peptidase S1 family.Contains 2 EGF-like domains.Contains 1 fibronectin type-I domain.Contains 1 fibronectin type-II domain.Contains 1 kringle domain.Contains 1 peptidase S1 domain.
Full Length	Full L.

GENE INFORMATION

Gene Name	F12 coagulation factor XII (Hageman factor) [Homo sapiens]
Official Symbol	F12
Synonyms	F12; coagulation factor XII (Hageman factor); coagulation factor XII;
Gene ID	2161
mRNA Refseq	NM_000505
Protein Refseq	NP_000496
MIM	610619
Uniprot ID	P00748
Chromosome Location	5q33-qter
Pathway	Blood Clotting Cascade, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved

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biosystem; Formation of Fibrin Clot (Clotting Cascade), organism-specific biosystem;

Function

binding; misfolded protein binding; peptidase activity; protein binding; serine-type endopeptidase activity;

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