

## Recombinant Human F12 cell lysate

Cat. No. F12-2115HCL Lot. No. (See product label)

### SPECIFICATION

**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 XIIIa) 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 XIIIa light chain and the alpha-factor XIIIa light chain becomes beta-factor XIIIa heavy chain. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIIa and then to beta-factor XIIIa. The active factor XIIIa 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.

**Size**

100 ul

**Storage Buffer**

1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)

**Applications**

Western Blot;

### GENE INFORMATION

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<b>Gene Name</b>	F12 coagulation factor XII (Hageman factor) [ Homo sapiens ]
<b>Official Symbol</b>	F12
<b>Synonyms</b>	F12; coagulation factor XII (Hageman factor); coagulation factor XII; Hageman factor; beta-factor XIIa part 1; beta-factor XIIa part 2; coagulation factor XIIa heavy chain; coagulation factor XIIa light chain; HAF; HAE3; HAEX;
<b>Gene ID</b>	2161
<b>mRNA Refseq</b>	NM_000505
<b>Protein Refseq</b>	NP_000496
<b>MIM</b>	610619
<b>UniProt ID</b>	P00748
<b>Chromosome Location</b>	5q33-qter
<b>Pathway</b>	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 biosystem; Formation of Fibrin Clot (Clotting Cascade), organism-specific biosystem; Hemostasis, organism-specific biosystem; Intrinsic Pathway, organism-specific biosystem;
<b>Function</b>	binding; misfolded protein binding; peptidase activity; protein binding; serine-type endopeptidase activity;

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