

## Product Datasheet

### F12 - Coagulation factor XII GRP13226

|                             |  |
|-----------------------------|--|
| <b>Species/Host</b>         | Chicken  |
| <b>Reactivity</b>           | Human  |
| <b>Predicted Reactivity</b> | Human  |
| <b>Immunogen</b>            | purified full length native protein UnniProt:P00748  |
| <b>Form/Appearance</b>      | Liquid in 0.9% NaCl, 0.1% sodium azide   |
| <b>Storage</b>              | Store at 4°C; make aliquots to avoid working with a stock. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from liquid material adhering to the cap or sides of the tubes.   |
| <b>Note</b>                 | For research use only.   |
| <b>Clonality</b>            | Polyclonal   |
| <b>Purity</b>               | Total IgY fraction   |
| <b>MW</b>                   | 67 kDa   |
| <b>Uniprot ID</b>           | P00748   |
| <b>Dilution Range</b>       | 1: 10 000 (ELISA)  |
| <b>Application Notes</b>    | <p>Additional Information: Detects human coagulation factor XII and XIIa.</p> <p>Background: Coagulation factor XII 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 Factor XII gene do not cause any apparent clinical symptoms and the sole effect is that whole blood clotting time is prolonged.</p> |