ARG54561
anti-Factor XII Heavy chain antibody [B7C9]

Package: 125 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [B7C9] recognizes Factor XII Heavy chain
Tested Reactivity	Hu
Tested Application	ELISA, WB
Specificity	This antibody reacts with the heavy chain of human Factor XII (mw~50,000) with KD of 9.8nM and partially blocks Factor XII activity.The specific epitope for this antibody is located within a 20amino acid sequence of 2.5 kD in thesurface binding area of Factor XII.
Host	Mouse
Clonality	Monoclonal
Clone	B7C9
Isotype	IgG1
Target Name	Factor XII Heavy chain
Species	Human
Immunogen	Purified human Factor XII.
Conjugation	Un-conjugated
Alternate Names	Hageman factor; Coagulation factor XII; HAF; EC 3.4.21.38; HAEX; Beta-factor XIIa part 2; HAE3

Application Instructions

Application Note	This antibody may be used in ELISA, Western blot, coagulation assays and for immunopurification of Factor XII. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Protein G-purified
Buffer	PBS (pH 7.4)
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
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]
Research Area	Cell Biology and Cellular Response antibody; Immune System antibody
Calculated Mw	68 kDa
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.