

Anti-Human Factor X Monoclonal 0.50 mg



Ref#: MAB-HF10LC

Lot#: xxxxxx

Exp. Date: xxxx-xx

Store at -20°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

Immunogen:	Human Factor X (from human plasma)
Format:	Monoclonal antibody purified by protein G affinity chromatography from cell supernatant. Lyophilized in 20 mM sodium phosphate, 150 mM NaCl, 0.01 % sodium azide, pH 7.2
Clone ID#:	509
Storage:	Store unopened vial at -20°C until its expiration date. Reconstitute with aqua dest to the original volume (0.50 mL) and freeze aliquots at -20°C or below. Avoid freeze/thaw cycles. Expires 2 years after reconstitution.
Total Protein:	0.50 mg
Applications:	For Research Use Only. Not for Use in Diagnostic Procedures. For <i>in vitro</i> Use Only
Volume:	1 vial containing 0.50 mL monoclonal anti-human Factor X
Concentration:	1 mg/mL
Specificity:	Purity determined by SDS-PAGE is > 98%. Binds human FX and FXa in solid phase ELISA. Bind FX light chain in Immunoblotting. Bind I-125 labeled FX. Does not bind bovine FX. Binds FX in presence of EDTA or Ca ⁺⁺ . Prolongs PT and APTT. Partially inhibits prothrombin activation in prothrombinase assay.

Factor X (FX, Stuart Factor) is a vitamin K-dependent glycoprotein produced in the liver. The concentration in plasma is ~10 µg/mL (~170 nM). FX is expressed as a two-chain molecule with a molecular weight of about 59 kDa. The light chain (17 kDa) contains a calcium-binding domain consisting of one hydroxy-aspartic acid and 11 γ-carboxyglutamic acid (gla) residues. These residues allow FX to bind to membranes that contain acidic phospholipids in a calcium dependent manner. This is followed by two EGF-like domains. The heavy chain (42 kDa) consists of the catalytic domain, carbohydrate and the activation peptide. Activation to the active enzyme (FXa) results from cleavage at residue Arg52 in the heavy chain by a complex of FIXa, cofactor VIIIa, calcium and negatively charged phospholipid surface, or by the FVIIa-tissue factor complex.