

F10

Native Mouse Factor X

Catalog No.	CSI19887A CSI19887B	Quantity:	0.1 mg 1.0 mg
Alternate Names:	Coagulation factor X, Stuart factor		
Description:	Coagulation Factor X (F10) is a Vitamin K-dependent protease involved in the blood Coagulation Cascade. F10 undergoes multiple processing steps before its pre-proprotein is converted to a mature two-chain form by the excision of the tripeptide RKR. Two chains of the factor are held together by 1 or more disulfide bonds; the light chain contains 2 EGF-like domains, while the heavy chain contains the catalytic domain which is structurally homologous to those of the other hemostatic serine proteases. Mature F10 is activated by the cleavage of the activation peptide by Factor IXa (Intrinsic Pathway), or by Factor VIIa (Extrinsic Pathway). Activated F10 then converts Prothrombin to Thrombin in the presence of Factor Va, Ca ²⁺ , and phospholipid during blood clotting. Mutations in the F10 gene result in Factor X deficiency, a hemorrhagic condition of variable severity.		
UniProt ID:	O88947		
Gene ID:	14058		
Molecular Weight:	58.9 kDa		
Source:	Mouse Plasma, fresh, not frozen		
Formulation:	Liquid in 50% Glycerol		
Purity:	>95% by SDS-PAGE analysis		
Concentration:	≥ 1.0 mg/ml, lot specific		
Extinction Coefficient:	$E_{280\text{nm}}^{0.1\%} = 1.004$		
Biological Activity:	Factor X clotting activity, 1 unit is defined as the clotting activity in 1 ml of normal mouse plasma		
Specific Activity:	86.8 U/mg determined by Factor X clotting assay		
Storage & Stability:	Store at -80°C for up to 1 year. Upon initial thaw, prepare working aliquots and store at -80°C. Avoid repeated freeze-thaw cycles.		

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