Product name:	PROZ Mouse Monoclonal Antibody
Cat number:	MABN80755
Conjugate:	Unconjugated
Size:	100µL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Mouse
Isotype:	Mouse IgG1
Immunogen:	Purified recombinant fragment of PROZ expressed in E. Coli.
Reactivity:	Human
Applications:	WB 1:500-1:2000,ELISA 1:5000-1:20000
Molecular Weight:	45kDa
Purification:	Affinity Purification
Form:	Liquid
Buffer:	Ascitic fluid containing 0.03% sodium azide.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.
Background:	PROZ protein Z, vitamin K-dependent plasma glycoprotein. It is 62 kDa large and 396 amino acids long. It has four domains: a gla-rich region, two EGF-like domains and a trypsin-like domain. It lacks the serine residue that would make it catalytically active as a serine protease. It is a member of the coagulation cascade, the group of blood proteins that leads to the formation of blood clots. It is vitamin K-dependent, and its functionality is therefore impaired in warfarin therapy. It is a glycoprotein. Although it is not enzymatically active, it is structurally related to several serine proteases of the coagulation cascade: factors VII, IX, X and protein C. The carboxyglutamate residues (which require vitamin K) bind protein Z to phospholipid surfaces. The main role of protein Z appears to be the degradation of factor Xa. This is done by protein Z-related protease inhibitor (ZPI), but the reaction is accelerated 1000-fold by the presence of protein Z. Oddly, ZPI also degrades factor XI, but this reaction does not require the presence of protein Z. In some studies, deficiency states have been associated with a propensity to thrombosis. Others, however, link it to bleeding tendency; there is no clear explanation for this, as it acts physiologically as an inhibitor, and deficiency would logically have led to a predisposition for thrombosis.