

PROZ Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1302a**Specification**

PROZ Antibody - Product Information

Application	WB, IHC
Primary Accession	P22891
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	45kDa KDa

Description

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.

Immunogen

Purified recombinant fragment of PROZ expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

PROZ Antibody - Additional Information

Gene ID 8858

Other Names

Vitamin K-dependent protein Z, PROZ

Dilution

WB~~1/500 - 1/2000

IHC~~1:200~~1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PROZ Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PROZ Antibody - Protein Information

Name PROZ

Function

Appears to assist hemostasis by binding thrombin and promoting its association with phospholipid vesicles. Inhibits activity of the coagulation protease factor Xa in the presence of SERPINA10, calcium and phospholipids.

Cellular Location

Secreted.

Tissue Location

Plasma.

PROZ Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

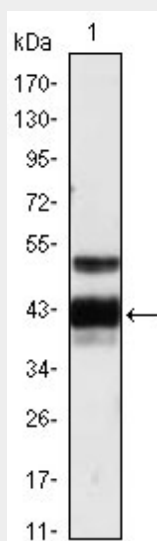
PROZ Antibody - Images

Figure 1: Western blot analysis using PROZ mouse mAb against human plasma (1).

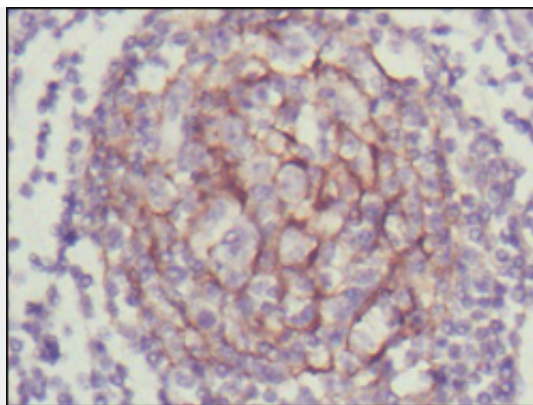


Figure 2: Immunohistochemical analysis of paraffin-embedded human lymph node using NTRK3 mouse mAb with DAB staining.

PROZ Antibody - References

1. J Thromb Haemost. 2005 Mar;3(3):497-501.
2. Blood Coagul Fibrinolysis. 2008 Jan;19(1):23-5.