BT LAB
Bioassay Technology Laboratory
Optimize Your Research

PROZ Monoclonal Antibody

Description

Product type	Antibody
Code	BT-MCA4552
Host	Mouse
Isotype	Mouse IgG1
Size	100µL, 50µL
Immunogen	Purified recombinant fragment of PROZ expressed in E. Coli.
Mol wt	45kDa
Species reactivity	Human
Clonality	Monoclonal
Recommended application	WB
Concentration	N/A
Full name	N/A
Synonyms	protein Z;PZ

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

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.

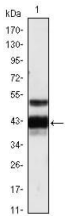
Recommended Dilution

WB: 1:500 - 1:2000

ELISA: 1:10000

Not yet tested in other applications.

Images



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

Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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