



Sheep anti Human Platelet Factor 4 polyclonal antibody [HRP] (CABT-L517)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Prior to conjugation, this antibody was specific for Platelet Factor 4 as demonstrated by immunoelectrophoresis and ELISA.
Target	Platelet Factor 4
Immunogen	Platelet Factor 4 purified from human platelet releasate.
Isotype	IgG
Source/Host	Sheep
Species Reactivity	Human
Conjugate	HRP
Applications	IEP, ELISA
Format	Liquid
Size	200 µg
Buffer	A buffered stabilizer solution containing 50% (v/v) glycerol.
Preservative	None
Storage	Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity.

BACKGROUND

Introduction	Platelet Factor 4 (PF4) is a small high-affinity heparin binding protein localized in the α-granules of platelets and megacaryocytes. It is a member of a multigene "intercrine-cytokine" family that includes β-thromboglobulin, connective tissue activating peptide III, monocyte-derived neutrophil chemotactic factor and melanoma growth stimulatory factor. Human PF4 consists of 70 amino acids and has a mass of 7800 daltons. In the platelet, PF4 exists as a homo-tetramer in complex with a high-molecular weight proteoglycan carrier. PF4 is one of the most abundant proteins in the platelet α-granule and is considered platelet-specific, as its concentration in platelets is more than 20,000-fold greater than in plasma. The heparin neutralization activity of PF4 is believed to be due to the presence of four lysine residues interspersed among pairs of aliphatic residues in the C-terminal region of the molecule. During vessel injury, platelets are stimulated by thrombin or other agonists to release α-granule contents at the site of injury. Presumably the potent heparin neutralization activity of PF4 would reduce the anticoagulant activity of antithrombin, prolonging the action of thrombin and activated factor X to promote clot formation. Released PF4 also binds to heparin-like molecules on the surface of endothelial cells and hepatocytes, neutralizing the anticoagulant activity expressed by these cells. Some of the other activities attributable to PF4 include the potentiation of platelet aggregation, stimulation of fibroblast attachment to substrata, chemotactic activity with respect to neutrophils and inhibition of contact activation.
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Keywords	PF4;platelet factor 4;PF-4;CXCL4;SCYB4;iroplact;oncostatin-A;C-X-C motif chemokine 4;chemokine (C-X-C motif) ligand 4;
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GENE INFORMATION

Entrez Gene ID	5196
UniProt ID	P02776