



# Sheep anti Human Platelet Factor 4 polyclonal antibody (CABT-L516)

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

## PRODUCT INFORMATION

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| <b>Specificity</b>        | This antibody is specific for Platelet Factor 4 as demonstrated by immunoelectrophoresis and ELISA.  |
| <b>Target</b>             | Platelet Factor 4  |
| <b>Immunogen</b>          | Platelet Factor 4 purified from human platelet releasate.  |
| <b>Isotype</b>            | IgG  |
| <b>Source/Host</b>        | Sheep  |
| <b>Species Reactivity</b> | Human  |
| <b>Purification</b>       | Affinity purified  |
| <b>Conjugate</b>          | Unconjugated   |
| <b>Applications</b>       | IEP, ELISA   |
| <b>Format</b>             | Liquid   |
| <b>Size</b>               | 0.5 mg   |
| <b>Buffer</b>             | 10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.  |
| <b>Preservative</b>       | None   |
| <b>Storage</b>            | 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. |

# BACKGROUND

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| Introduction | <p>Platelet Factor 4 (PF4) is a small high-affinity heparin binding protein localized in the <math>\alpha</math>-granules of platelets and megacaryocytes. It is a member of a multigene "intercrine-cytokine" family that includes <math>\beta</math>-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 <math>\alpha</math>-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 <math>\alpha</math>-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.</p> |
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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

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|----------------|------------------------|
| Entrez Gene ID | <a href="#">5196</a>   |
| UniProt ID     | <a href="#">P02776</a> |