Mouse CXCL4/PF4 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF595

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CXCL4/PF4 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human CXCL4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse CXCL4/PF4 Val30-Ser105 Accession # Q9Z126
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

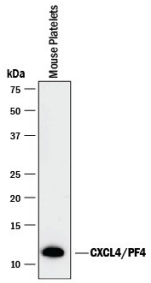
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	25 µg/mL	Mouse platelets

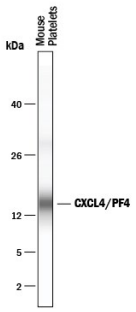
DATA

Western Blot



Detection of Mouse CXCL4/PF4 by Western Blot. Western blot shows lysate of mouse platelets. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse CXCL4/PF4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF595) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF017). A specific band was detected for CXCL4/PF4 at approximately 11 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Mouse CXCL4/PF4 by Simple Western™. Simple Western lane view shows lysates of mouse platelets, loaded at 0.2 mg/mL. A specific band was detected for CXCL4/PF4 at approximately 14 kDa (as indicated) using 25 µg/mL of Goat Anti-Mouse CXCL4/PF4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF595) . This experiment was conducted under reducing conditions and using the 2-40 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CXCL4 is a member of the CXC chemokine family. Mouse CXCL4 is a 105 amino acid (aa) protein with a 29 aa signal sequence and a 76 aa mature protein. CXCL4 has homology with IL-8 and β-thromboglobulin. Mouse and human CXCL4 share a 64% identity. Mouse and rat CXCL4 share 89% identity. CXCL4 contains several heparin-binding sites at the C-terminal region. The active protein consists of a tetramer composed of individual CXCL4 subunits. Megakaryocytes synthesize CXCL4 and store it as tetramers in α-granules. The CXCL4 tetramers are secreted by activated platelets and can be measured at micromolar levels in serum. In contrast to other CXC chemokines, CXCL4 lacks chemotactic activity for polymorphonuclear granulocytes. CXCL4 does not contain an ELR motif. However, many other fuctions have been observed for CXCL4. CXCL4 is involved in monocyte survivial and differentiation into macrophages, and it has anti-angiogenic activity. CXCL4 has been demonstrated to inhibit the binding of FGF-2 to high-affinity receptors and its subsequent internalization. Cell surface neutrophil chondroitin sulfate chains serve as CXCL4 binding sites; affinity is controlled by the degree of sulfation of these chains.

References:

1. Poncz, M. *et al.* (1987) Blood **69**:219.
2. Scheuerer, B. *et al.* (2000) Blood **95**:1158.
3. Perollet, C. *et al.* (1998) Blood **91**:3289.
4. Petersen, F. *et al.* (1998) J. Immunol. **161**:4347.
5. Petersen, F. *et al.* (1999) J. Biol. Chem. **274**:12376.
6. Watanabe, O. *et al.* (1999) J. Hum. Genet. **44**:173.

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