Human CXCL4/PF4
Fluorescein-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 170138

Catalog Number: IC7952F

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL4/PF4 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse (rm) CXCL6, recombinant human (rh) CXCL6, rhCXCL7, rmCXCL13 or rhCCL21 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 170138
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human CXCL4/PF4 Glu32-Ser101 Accession # P02776.2
Conjugate	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

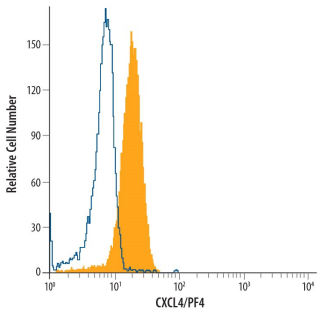
APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of CXCL4/PF4 in Human Immature Dendritic Cells by Flow Cytometry. Human immature dendritic cells were stained with Mouse Anti-Human CXCL4/PF4 Fluorescein-conjugated Monoclonal Antibody (Catalog # IC7952F, filled histogram) or isotype control antibody (Catalog # IC0041F, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CXCL4, also known as Platelet Factor 4 (PF4), is an 8 kDa CXC chemokine that is stored in platelet α-granules as a homotetramer and secreted abundantly during platelet activation. Human CXCL4 is a 101 amino acid (aa) protein with a 32 aa signal sequence and a 70 aa mature protein that includes granule targeting and heparin-binding sequences. CXCL4 has homology with IL-8 and β-thromboglobulin and can form heteromultimers with IL-8. Mature human and mouse CXCL4 share 76% aa identity. 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 functions have been observed for CXCL4. CXCL4 is involved in monocyte survivial and differentiation into macrophages, has anti-angiogenic activity and promotes granule Protein C activation. 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:

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