

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL4/PF4 in ELISAs. In ELISAs, this antibody does not cross-react with recombinant human (rh) CXCL1, rhCXCL2, or rmCXCL4.
Source	Monoclonal Mouse IgG _{2B} Clone # 170131
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human CXCL4/PF4 Glu32-Ser101 Accession # P02776.2
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.

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, is a member of the CXC chemokine family, CXCL4. Human CXCL4 is a 101 amino acid (aa) protein with a 32 aa signal sequence and a 70 aa mature protein. CXCL4 has homology with IL-8 and β-thromboglobulin. Human and mouse CXCL4 share a 64% 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 functions have been observed for CXCL4. CXCL4 is involved in monocyte survival 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.

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