

DESCRIPTION

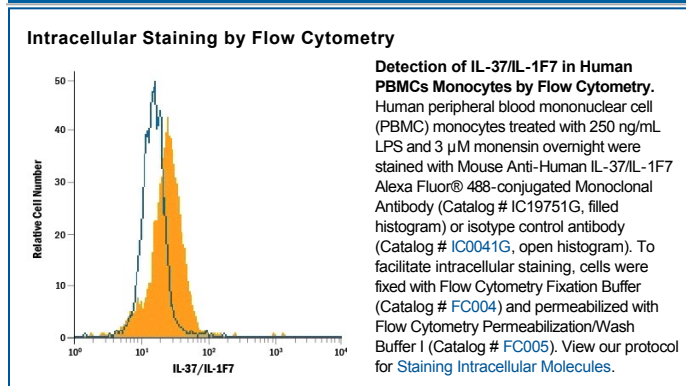
Species Reactivity	Human
Specificity	Detects human IL-37/IL-1F7 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 899826
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-37/IL-1F7 Lys53-Val206 Accession # Q9NZH6
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
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	5 µL/10 ⁶ cells	See Below

DATA



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. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Human interleukin 1 family member 7 (IL-1F7), also known as FIL-1Z, IL-1H4, and IL-1RP1, belongs to the IL-1 cytokine family, which currently has ten members. With the exception of IL-18 that maps to human chromosome 11, all other IL-1 family members map to the same cluster on human chromosome 2. Five alternatively spliced transcripts that arise through alternate exon usage have been described. These transcripts encode five different IL-1F7 isoforms (IL-1F7a through e also referred to as isoforms 1 through 5) that have distinct expression profiles. Polymorphism in the protein sequence of IL-1F7 isoforms also exists. Like IL-1 α , IL-1 β and IL-18, all of the IL-1F7 variants lack a typical signal peptide. The longest IL-1F7 transcript, referred to as IL-1F7b or IL-1F7 isoform 1, encodes a 218 amino acid (aa) residues proprotein containing a 45 aa propeptide, which is removed by caspase-1 to generate the 173 aa mature segment. Mature IL-1F7b and other IL-1F7 variants lack potential N-linked glycosylation sites. The secreted mature IL-1F7b was reported to exist as a non-disulfide linked homodimers in solution, IL-1F7 shares approximately 21%, 24%, and 30% aa sequence identity with mature IL-1 α , IL-1 β and IL-1ra, respectively. Mouse IL-1F7 has not been reported, but human IL-1F7 is active on mouse cells. IL-1F7b binds to IL-18 R α with low affinity but does not exert any IL-18 agonistic or antagonistic effects. IL-1F7b also binds to the IL-18BP to enhance the antagonistic effects of IL-18BP. It has been proposed that IL-1F7b form a trimeric complex with IL-18BP and IL-18 R β . This complex blocks IL-18 activity by sequestering the signal transducing subunit and preventing it from participating in IL-18 signaling (1-8).

References:

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7. Pan, G. *et al.* (2001) Cytokine **13**:1.
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