

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-37/IL-1F7 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-1α, rhIL-1β, rhIL-1ra, rhIL-36Ra/IL-1F5, rhIL-36 alpha/IL-1F6, rhIL-36 beta/IL-1F8, or rhIL-18/IL-1F4 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 261506
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-37/IL-1F7 Lys27-Asp192 Accession # NP_775297
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

Blockade of Receptor-ligand Interaction 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

Human interleukin 1 family member 7 (IL-1F7), also named 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-1α, IL-1β 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 nondisulfide linked homodimers in solution, IL-1F7 shares approximately 21%, 24%, and 30% aa sequence identity with mature IL-1α, IL-1β 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 Rα 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 Rβ. This complex blocks IL-18 activity by sequestering the signal transducing subunit and preventing it from participating in IL-18 signaling (1-8).

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