

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-37/IL-1F7 in Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human (rh) FIL1δ is observed and less than 2% cross-reactivity with rhFIL1ε, rhFIL1η, rhIL-1α, rhIL-1β, and rhIL-1 H1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IL-37/IL-1F7 Lys27-Asp192 Accession # NP_775297
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

## 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IL-37/IL-1F7 (Catalog # 1975-IL)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Human interleukin 1 family member 7 (IL-1F7), also named FIL-1ζ, 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).

## References:

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