

**DESCRIPTION**

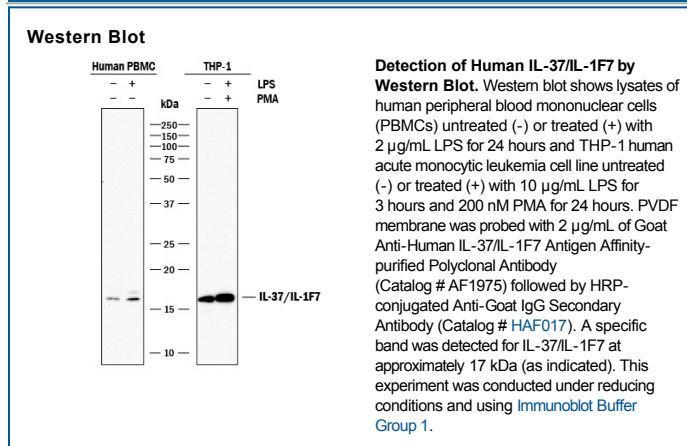
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-37/IL-1F7 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) FIL1δ, rhFIL1ε, rhFIL1 eta, rhIL-1α, rhIL-1β, rhIL-18, and rhIL-1 H1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IL-37/IL-1F7 Lys27-Asp192 Accession # Q9NZH6-2
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

**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>	2 μg/mL	See Below

**DATA**



**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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<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-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 $\alpha$ , IL-1 $\beta$  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-1 $\alpha$ , IL-1 $\beta$  and IL-1 $\alpha$ , respectively. Mouse IL-1F7 has not been reported, but human IL-1F7 is active on mouse cells. IL-1F7b binds to IL-18 R $\alpha$  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 $\beta$ . 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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4. Kumar S. *et al.* (2002) *Cytokine* **18**:61.
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