

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-36α/IL-1F6 in Western blots. In Western blots, less than 5% cross-reactivity with recombinant human (rh) IL-1F5 and rhIL-1F6 is observed and less than 1% cross-reactivity with recombinant mouse (rm) IL-1F7, rhIL-1β, rhIL-1ra, rhIL-1F, and rhIL-18 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-36α/IL-1F6 Met1-His160 Accession # Q9JLA2
<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 Mouse IL-36α/IL-1F6 (Catalog # 2297-ML)

## 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

Mouse interleukin-36 alpha [IL-36α; also named interleukin 1 family member 6, IL-1F6 and FIL-1ε (epsilon)] is a member of the IL-1 family of proteins (1-3). IL-1 family members include IL-1β, IL-1α, IL-1ra, IL-18 and IL-1F5 through F10 (4). All family members show a 12 β-strand, β-trefoil configuration, and all family members are believed to have arisen from a common ancestral gene that has undergone multiple duplications (4). IL-1F6 is synthesized as a 160 amino acid (aa) protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation site(s) (2, 5). It appears to be actively secreted (1). When found in cell lysates, it presents as an 18 kDa monomer (2). Mouse to human, full length IL-1F6 has 54% aa identity. Within the family, IL-1F6 is 29% aa identical to IL-1ra, and 32%, 32%, 34%, 41%, and 28% aa identical to IL-1β, IL-1F5, F8, F9, and F10, respectively. Cells reported to express IL-1F6 include monocytes, B cells and T cells (1, 4). Notably, IL-1F6 is the only novel IL-1 family member found to be expressed on T-cells. The receptor for IL-1F6 is reported to be a combination of IL-1 Rrp2 and IL-1 RAcP (6). Recombinant IL-1F6, along with IL-1F8 and IL-1F9, has been shown to act as an agonist by activating the pathway involving NF-κB and MAPK in an IL-1 Rrp2 dependent manner. This suggests that IL-1F6 may signal in similar fashion to IL-1 and IL-18 in having a binding receptor which upon ligation, recruits a second receptor as a signaling component, forming an active heterodimeric receptor complex.

## References:

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4. Dunn, E. *et al.* (2001) Trends Immunol. **22**:533.
5. Debets, R. *et al.* (2001) J. Immunol. **167**:1440.
6. Towne, J.E. *et al.* (2004) J. Biol. Chem. **279**:13677.