

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse IL-36 $\alpha$ /IL-1F6 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse (rm) IL-1F5 and no cross-reactivity with recombinant human (rh) rhIL-1 $\alpha$ , rhIL-1 $\beta$ , rmIL-1F8, rhIL-1F6  |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 275339                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse IL-36 $\alpha$ /IL-1F6<br>Met1-His160<br>Accession # Q9JLA2                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                                                |                                                                        |
|------------------------------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>                            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Blockade of Receptor-ligand Interaction</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Mouse interleukin 1 family member #6 [IL-1F6; also named FIL-1 $\epsilon$  (epsilon)] is a member of the IL-1 family of proteins (1-3). IL-1 family members include IL-1 $\beta$ , IL-1 $\alpha$ , IL-1ra, IL-18 and IL-1F5 through F10 (4). All family members show a 12  $\beta$ -strand,  $\beta$ -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-1 $\beta$ , 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- $\kappa$ B 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.

## PRODUCT SPECIFIC NOTICES

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