**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects human IL-36Ra/IL-1F5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant human (rh) IL-1α, rhIL-1β, rhIL-1ra, rhIL-18, rhIL-1F6, or rhIL-1F8.

**Source** Monoclonal Mouse IgG₂B Clone # 190524

**Purification** Protein A or G purified from hybridoma culture supernatant

**Immunogen** *E. coli*-derived recombinant human IL-36Ra/IL-1F5 Met1-Asp155

**Accession #** Q9UBH0

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Recommended Concentration**

**Sample**

| Western Blot | 1 µg/mL | Recombinant Human IL-36Ra/IL-1F5 (Catalog # 1275-IL) |

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is supplied with polar packs. Upon receipt, store it immediately at -20 to -70 °C

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Human interleukin 1 family member #5 (IL-1F5; also named FIL-1δ, IL-1HY1, IL-1H3, and IL-1L1) is a member of the IL-1 family of proteins (1-5). IL-1 family members include IL-1α, IL-1β, IL-1ra, IL-18, and IL-1F5 - IL-1F10 (6). 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 underwent multiple duplications (6). The human IL-1F5 gene is in closest proximity to the gene for IL-1ra and is likely a relatively recent duplication of the IL-1ra gene (2, 3). IL-1F5 is synthesized as a 155 amino acid (aa) protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation site(s) (2-5). Nevertheless, it appears to be secreted as a 17 kDa monomer (5). There is an alternate start site that potentially gives rise to an alternate splice form (5). The translated product, however, has a premature stop codon, resulting in a truncated 16 aa peptide. Human to mouse, full length IL-1F5 has 90% aa identity. Within the family, IL-1F5 is 50% aa identical to IL-1ra, and 32%, 31%, 35%, 37%, 32%, and 42% aa identical to IL-1β, IL-1F6, F7, F8, F9, and F10, respectively. Cells reported to express IL-1F5 include monocytes, B cells, dendritic cells/Langerhans cells, keratinocytes, and gastric fundus Parietal and Chief cells (1, 7). The receptor for IL-1F5 has not been positively identified. Indirect evidence suggests it is IL-1 Rr2 and/or IL-1 RAc (8).

In either case, activity association with receptor binding is also unclear. It was initially reported to be an antagonist of IL-1F9 activity (4, 6). This would be consistent with its hypothesized relationship to IL-1ra. Studies, however, find IL-1F5 antagonist activity difficult to demonstrate (8).

**References:**