

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human IL-36Ra/IL-1F5 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) IL-1F6, rhIL-1F8, rhIL-1 α , rhIL-1 β and rhIL-18 is observed. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant human IL-36Ra/IL-1F5 Val2-Asp155 Accession # Q9UBH0 |
| Endotoxin Level | <0.10 EU per 1 μ g of the antibody by the LAL method. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. |

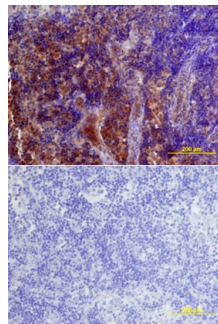
APPLICATIONS

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.

| | Recommended Concentration | Sample |
|--|---|--|
| Western Blot | 0.1 μ g/mL | Recombinant Human IL-36Ra/IL-1F5 (Catalog # 1275-IL) |
| Immunohistochemistry | 5-15 μ g/mL | See Below |
| Blockade of Receptor-ligand Interaction | In a functional ELISA, 0.5-2 μ g/mL of this antibody will block 50% of the binding of 5 μ g/mL of Recombinant Human IL-1 Rrp2 Fc Chimera or Recombinant Mouse IL-1 Rrp2 Fc Chimera (Catalog # 872-RP or 2354-RP) to immobilized Recombinant Human IL-36Ra/IL-1F5 or Recombinant Mouse IL-36Ra/IL-1F5, respectively (Catalog # 1275-IL or 2714-ML) coated at 1 μ g/mL (100 μ L/well). At 100 μ g/mL, this antibody will block >90% of the binding. | |

DATA

Immunohistochemistry



IL-36Ra/IL-1F5 in Human Lymph Node.

IL-36Ra/IL-1F5 was detected in immersion fixed paraffin-embedded sections of human lymph node using Human IL-36Ra/IL-1F5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1275) at 15 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

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|--------------------------------|---|
| Reconstitution | Reconstitute at 0.2 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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-36 receptor antagonist protein [IL36Ra; also named interleukin 1 family member 5, IL-1F5, FIL-1δ (delta), IL36RN, IL-1HY1, IL-1H3, and IL-1L1] is a member of the IL-1 family of proteins (1-6). IL-1 family members include IL-1β, IL-1α, IL-1ra, IL-18 and IL-1F5-F10 (6, 7). 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 (7). 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, 8). The receptor for IL-1F5 has not been positively identified. Indirect evidence suggests it is IL-1 Rrp2 and/or IL-1 RAcP (9). In either case, activity association with receptor binding is also unclear. It was initially reported to be an antagonist of IL-1F9 activity (4, 7). This would be consistent with its hypothesized relationship to IL-1ra. Studies, however, find IL-1F5 antagonist activity difficult to demonstrate (9).

References:

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