

**DESCRIPTION**

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human IL-17 RB in direct ELISAs.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 938975  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived human IL-17 RB<br>Arg18-Gly289<br>Accession # Q9NRM6  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

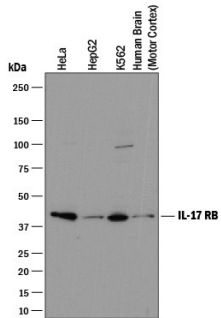
**APPLICATIONS**

**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     |
| <b>Flow Cytometry</b> | 0.25 µg/10 <sup>6</sup> cells    | See Below     |

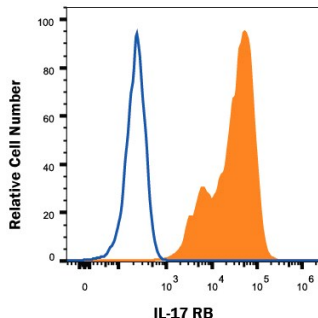
**DATA**

**Western Blot**



**Detection of Human IL-17 RB by Western Blot.** Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, HepG2 human hepatocellular carcinoma cell line, K562 human chronic myelogenous leukemia cell line, and human brain (motor cortex) tissue. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human IL-17 RB Monoclonal Antibody (Catalog # MAB12072) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for IL-17 RB at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Flow Cytometry**



**Detection of IL-17 RB in HEK293 Human Cell Line Transfected with Human IL-17 RB by Flow Cytometry.** HEK293 human embryonic kidney cell line transfected with human IL-17 RB was stained with Mouse Anti-Human IL-17 RB Monoclonal Antibody (Catalog # MAB12072, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for [Staining Membrane-associated Proteins](#).

**PREPARATION AND STORAGE**

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.5 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.<br>*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**

The interleukin 17 (IL-17) family of cytokines, comprising six members (IL-17, IL-17B through IL-17F), are structurally related proteins with a conserved cysteine-knot structure. These proinflammatory cytokines can induce local cytokine productions and are involved in the regulation of the immune response. The cognate receptors activated by some of these cytokines have been identified (1). Interleukin-17 B Receptor (IL-17 RB), also known as IL-17Rh1, IL-17ER and EVI27, represents the second receptor of the IL-17 family of cytokines to be recognized (2-4). Human IL-17 RB cDNA encodes a 502 amino acid (aa) residue type I membrane protein with a putative 17 aa signal peptide, a 275 aa extracellular domain, a 21 aa transmembrane domain and a 189 aa cytoplasmic tail. By alternative splicing, a secreted variant of IL-17 RB has also been identified (4). Human and mouse IL-17 RB share 76% aa sequence identity. The human IL-17 RB protein sequence is only 19.2% identical to the human IL-17 R sequence, but the two receptors share many conserved cysteine residues within their extracellular domains as well as additional conserved elements within their cytoplasmic domains. Three additional type I transmembrane receptors with homology to IL-17 R have been reported, increasing the number of the IL-17 R family members to five (5, 6). By Northern blot analysis, human IL-17 RB is highly expressed in kidneys and liver but is expressed at lower levels in testes, brain, small intestine and other endocrine tissues (2-4). The expression of IL-17 RB is significantly up-regulated under inflammatory conditions. IL-17 RB binds strongly to IL-17E and weakly to IL-17B. It does not bind IL-17, IL-17C, and IL-17F. Activation of IL-17 RB by its ligands results in the activation of nuclear factor kappa-B (2-4).

**References:**

1. Aggarwal, S. and A.L. Gurney (2002) *J. Leukoc. Biol.* **71**:1.
2. Shi Y, *et al.* (2000) *J. Biol. Chem.* **275**:19167.
3. Lee, J, *et al.* (2001) *J. Biol. Chem.* **276**:1660.
4. Tian E, *et al.* (2000) *Oncogene* **19**:2098.
5. Haudenschild, D. *et al.* (2002) *J. Biol. Chem.* **277**:4309.
6. Hurst, S.D. *et al.* (2002) *J. Immunol.* **169**:443.