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# Polyclonal Antibody to IL17RB / IL17BR (359-377) - Aff - Purified

**Alternate names:** Cytokine receptor CRL4, EVI27, IL-17 receptor B, IL-17 receptor homolog 1, IL-17RB, Interleukin-17 receptor B, Interleukin-17B receptor

**Catalog No.:** AP10110PU-N

**Quantity:** 0.1 mg

**Concentration:** 0.74-0.90 µg/µl

**Background:** Pro inflammatory cytokine, IL-17 (IL-17A or CTLA-8) plays a central role in inflammation and autoimmunity. The IL17, like other cytokines is produce by activation of T cell receptor through CD3 cross linking (4). IL-17 is a crucial effecter cytokine, whose production is specifically triggered by IL-23, and it has been shown to be an essential inflammatory mediator in other autoimmune diseases and inflammatory conditions. In human the co-stimulation of T cells thru CD28 several co-stimulatory molecules (ICOS, 4-1BB, CD40L) mildly enhance the IL17 expression where as IL23 profoundly enhance the CD3 induced IL17 expression. The IL-17 expression is also sensitive to cyclosporin-A and MAPK inhibitors, suggesting the involvement of the calcineurin/NFAT and MAPK signaling pathway. IL17 signaling requires its binding to IL17 receptor, IL17 receptor is expression is widespread, the activity of IL17 is most commonly defined by its ability to induce the expression of inflammatory cytokines, chemokines and other mediators by stromal cells. In mouse genetically deficient in IL17RA, the IL17 signaling is poorly compensated by IL17RC suggesting the biological activity of IL17 is dependent on a heteromeric receptor complex composed of IL17RA and IL17RC (2). At least three types of IL17 receptors are cloned and characterized, IL17RA, IL17RB and IL17RC, IL17C is expressed in multiple spliced variant form (IL17RC1, ILRC2, and ILRC3). IL17RA deficient mice also showed high susceptibility and recovery after infusion of IL17A to hemopieotic cytotoxicity to gamma radiation suggesting involvement of IL17R dependent inducible mechanism that is required for recovery of granulopoiesis after radiation injury (3). IL17R is also involvement in allograft rejection and Intragraft IL-17 inhibition may be useful as an adjuvant therapy to systemic immunosuppression in tissue transplantation.
The predicted IL17RB receptor (502 aa) is a ubiquitous membrane glycoprotein that specifically binds to IL17B and IL17E but not to IL17 or IL17C. the receptor is known to activate the NF-KappaB and the production of IL8 induced by IL17E. the rat counter part if this receptor is induced during intestinal inflammation, suggesting the immuno-regulatory function of this receptor. The IL17RB is expressed in 2 distinct variant forms. Like other cytokines receptors, IL17RB also has multimeric structure. Interleukin 17B and its receptor play a pathogenic role in many inflammatory and autoimmune diseases including rheumatoid arthritis. The IL17RB has at least 2 TMD that anchor the protein to the cell membrane with a large intrcyctoplasmic domain where protein and signaling molecules interact with the receptor complex.

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| **Uniprot ID:** | O9NRM6 |
| **NCBI:** | NP_061195 |
| **GeneID:** | 55540 |
| **Host:** | Rabbit |
| **Immunogen:** | Synthetic peptide for IL17RB aa 359-377<br>**AA Sequence:**<br>cRSEVILEKWQKKKIAEMG |
| **Format:** | **State:** Liquid Ig fraction<br>**Purification:** Affinity chromatography<br>**Buffer System:** Stabilization buffer with 0.02 % sodium azide |
| **Applications:** | ELISA.<br>Western blot: › 1:500.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user. |
| **Specificity:** | This antibody detects a single 63-65 kDa in IL17RB. It cross react with variant 1 and 2 of the IL17RB receptor.<br>The antibody does not cross react with other members of<br>the pro-inflammatory cytokines or with other leukotrienes tested and also does not label any other cellular protein on western blots. |
| **Species Reactivity:** | **Tested:** Human, mouse, rat |
| **Storage:** | Store (in aliquots) at -20 °C. Avoid repeated freezing and thawing.<br>Shelf life: one year from despatch. |
| **General Readings:** | 1. Fossiez F, Djossou O, Chomarat P, Flores-Romo L, Ait-Yahia S, Maat C, et al. T cell interleukin-17 induces stromal cells to produce proinflammatory and hematopoietic cytokines. J Exp Med. 1996 Jun 1;183(6):2593-603. PubMed PMID: 8676080.<br>2. Toy D, Kugler D, Wolfson M, Vanden Bos T, Gurgel J, Derry J, et al. Cutting edge: interleukin 17 signals through a heteromeric receptor complex. J Immunol. 2006 Jul 1;177(1):36-9. PubMed PMID: 16785495.<br>3. Tan W, Huang W, Zhong Q, Schwarzenberger P. IL-17 receptor knockout mice have enhanced myelotoxicity and impaired hemopoietic recovery following gamma irradiation. J Immunol. 2006 May 15;176(10):6186-93. PubMed PMID: 16670328. |