Human IL-17B R Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1207

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17B R in Western blots. In Western blots, approximately 35% cross-reactivity with recombinant mouse (rm) IL-17B R is observed, approximately 5% cross-reactivity with rmIL-17 R is observed, and less than 1% cross-reactivity with recombinant human IL-17 R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-17B R Arg18-Gly289 Accession # NP_061195
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

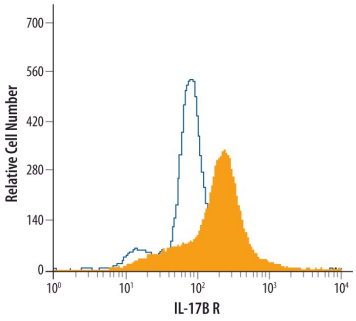
APPLICATIONS

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 µg/mL	Recombinant Human IL-17B R Fc Chimera (Catalog # 1207-BR)
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below

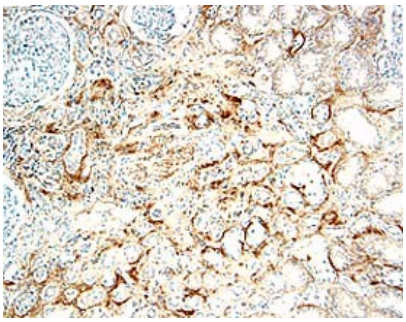
DATA

Flow Cytometry



Detection of IL-17B R in K562 Human Cell Line by Flow Cytometry. K562 human chronic myelogenous leukemia cell line was stained with Human IL-17B R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1207, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107).

Immunohistochemistry



IL-17B R in Human Kidney. IL-17B R was detected in immersion fixed paraffin-embedded sections of human kidney using 15 µg/mL Goat Anti-Human IL-17B R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1207) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

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	**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.

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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 pro-inflammatory 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-17B R), also known as IL-17Rh1, IL-17E R. and EVI27, represents the second receptor of the IL-17 family of cytokines to be recognized (2-4). Human IL-17B R 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-17B R has also been identified (4). Human and mouse IL-17B R share 76% aa sequence identity. The human IL-17B R 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-17B R 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-17B R 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-17B R 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.