

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-17 RB in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-17 RB, rhIL-17 R, or recombinant mouse IL-17 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>1</sub> Clone # 752101
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-17 RB Arg18-Gly286 Accession # Q9JIP3
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### 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
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	HEK293 human embryonic kidney cell line transfected with mouse IL-17 RB

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> ● 12 months from date of receipt, 2 to 8 °C as supplied.

#### 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 production and are involved in the regulation of the immune response. The cognate receptors activated by some of these cytokines have been identified (1, 2). Interleukin-17B Receptor (IL-17 RB), also known as IL-17 Rh1, IL-17E R and EVI27, represents the second receptor of the IL-17 family cytokines to be recognized (2-4). Mouse IL-17 RB cDNA encodes a 499 amino acid (aa) type I membrane protein with a putative 17 aa signal peptide, a 269 aa extracellular domain, a 21 aa transmembrane domain and a 192 aa cytoplasmic tail. As a result of alternative splicing, a secreted variant of IL-17 RB also exists (5). Human and mouse IL-17 RB share 76% aa sequence identity. IL-17 RB is approximately 20% identical to the human and mouse IL-17 R. However, the receptors share many conserved cysteine residues within their extracellular domains as well as additional conserved elements within their cytoplasmic domains. At least three additional type I transmembrane receptors with homology to IL-17 R, including IL-17 RL (IL-17 RC), IL-17 RD, and IL-17 RE, have been reported (2, 6). By Northern blot analysis, mouse IL-17 RB is highly expressed in liver and testes and is expressed at lower levels in kidney and lung. It is also expressed in some hematopoietic cell lines, including selected T cell, B cell, and myeloid cell lines (2-4). The expression of IL-17 RB is significantly upregulated under inflammatory conditions (7). IL-17 RB binds strongly to IL-17E and weakly to IL-17B. It does not bind IL-17 or 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. Moseley, T.A. *et al.* (2003) *Cytokine & Growth Factor Rev.* **14**:155.
3. Shi, Y. *et al.* (2000) *J. Biol. Chem.* **275**:19167.
4. Lee, J. *et al.* (2001) *J. Biol. Chem.* **276**:1660.
5. Tian, E. *et al.* (2000) *Oncogene* **19**:2098.
6. Haudenschild, D. *et al.* (2002) *J. Biol. Chem.* **277**:4309.
7. Hurst, S.D. *et al.* (2002) *J. Immunol.* **169**:443.

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