

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17 RB in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse (rm) IL-17 RB, recombinant human IL-17 R, or rmlIL-17 R is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 170220
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-17 RB Arg18-Gly289 Accession # Q9NRM6
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	K562 human chronic myelogenous leukemia cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. ● 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 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.

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