

**DESCRIPTION**

<b>Source</b>	Mouse myeloma cell line, NS0-derived		
	Human IL-17 RB (Arg18-Gly289) Accession # NP_061195	DIEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Arg18		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	57 kDa (monomer)		

**SPECIFICATIONS**

<b>SDS-PAGE</b>	70-75 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to bind recombinant human IL-17E in a functional ELISA.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 100 µg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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>● 3 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-17B R), 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-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.