

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-17E in Western blots. In this format, less than 10% cross-reactivity with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, and rhIL-17F is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human IL-17E (R&D Systems, Catalog # 1258-IL) Tyr33-Gly177 Accession # Q9H293
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. 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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IL-17E/IL-25 (Catalog # 1258-IL)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/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>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The Interleukin 17 (IL-17) family proteins, comprising six members (IL-17, IL-17B through IL-17F), are secreted, structurally related proteins that share a conserved cysteine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus. With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers. IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2).

Human IL-17E cDNA encodes a 177 amino acid (aa) residues precursor protein with a putative 32 aa signal peptide (3). A second isoform of human IL-17E encoding a 161 aa precursor protein also exists (4). The two isoforms differ in their signal peptide sequences. Mature human IL-17E shares 76% aa sequence identity with mature mouse IL-17E. Human IL-17E also shares from 25% to 36% aa sequence identity with the other human IL-17 family members. IL-17E expression was detected at very low levels by PCR in various peripheral tissues including brain, kidney, lung, prostate, testis, adrenal gland spinal cord and trachea (3). IL-17E binds and activates IL-17 B Receptor (IL-17B R) (alternatively known as IL-17 Rh1, IL-17E R, and EVI27) (3), which is expressed in kidney and liver, and at lower levels in brain, testis and other endocrine tissues. The expression of IL-17B R is up regulated under inflammatory conditions. Ligation of IL-17E to IL-17 RB induces activation of nuclear factor kappa-B and stimulates the production of the proinflammatory cytokine IL-8 (3). IL-17 has also been found to promote the expression of the prototypical Th2 genes (4, 5).

### 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. Lee, J. *et al.* (2001) *J. Biol. Chem.* **276**:1660.
4. Hurst, S.D. *et al.* (2002) *J. Immunol.* **169**:443.
5. Pan, G. *et al.* (2001) *J. Immunol.* **167**:6569.