

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human IL-17E in direct ELISAs and Western blots. Shows 100% cross-reactivity with recombinant mouse IL-17E and no cross-reactivity with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, or rhIL-17F.   |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 182203   |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human IL-17E<br>Tyr33-Gly177<br>Accession # Q9H293   |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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.

|   | <b>Recommended Concentration</b> | <b>Sample</b>   |
|---|----------------------------------|---|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells  | PC-3 human prostate cancer cell line fixed with paraformaldehyde and permeabilized with saponin |

#### 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> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

The Interleukin 17 (IL-17) family proteins, comprising six members (IL-17, and 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 25-36% 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 pro-inflammatory 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.

#### PRODUCT SPECIFIC NOTICES

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