

DESCRIPTION

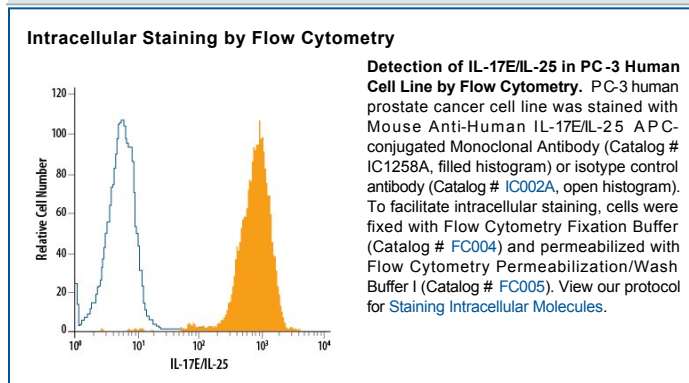
Species Reactivity	Human
Specificity	Detects human IL-17E in direct ELISAs and Western blots. Shows 100% cross-reactivity with recombinant mouse IL-17E and no cross-reactivity with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, or rhIL-17F.
Source	Monoclonal Mouse IgG ₁ Clone # 182203
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-17E Tyr33-Gly177 Accession # Q9H293
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied 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
Intracellular Staining by Flow Cytometry	10 µL/10 ⁶ cells	See Below

DATA



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

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.