

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17D in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, rhIL-17E, or rhIL-17F.
Source	Monoclonal Mouse IgG _{2B} Clone # 246002
Purification	Protein A or G purified
Immunogen	<i>E. coli</i> -derived recombinant human IL-17D Ala18-Pro202 Accession # Q8TAD2.1
Conjugate	Alexa Fluor Plus 405 Excitation Wavelength: 404 nm Emission Wavelength: 455 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.

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 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 (1, 2). With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers (3). IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2). Two receptors (IL-17 R, and IL-17B R), which are activated by IL-17 family members, have been identified. In addition, at least three additional orphan type I transmembrane receptors with homology to IL-17 R, including IL-17 RL (IL-17 RC), IL-17 RD, and IL-17 RE, have also been reported (1-4). The functions of IL-17 RC, D, and E are not known. Human IL-17D cDNA encodes a 202 amino acid (aa) residues protein with a putative 17 aa signal peptide (5). Human and mouse IL-17D share 78% sequence identity. Among IL-17 family members, IL-17D is most closely related to IL-17B, sharing 27% aa sequence homology (5, 6). IL-17D is expressed preferentially in skeletal muscle, heart, adipose tissue, lung, pancreas, and nervous system (1, 5). Like other IL-17 family members, IL-17D modulates immune responses indirectly by stimulating the production of myeloid growth factors and chemokines including IL-6, IL-8, and GM-CSF (5). IL-17D has also been shown to suppress the proliferation of myeloid progenitors in colony formation assays. The receptor of IL-17D has not yet been identified. However, stimulation of IL-8 production by IL-17D is mediated through the activation of nuclear factor kappa-B (5). The IL-17D preparations from R&D Systems have been found to bind immobilized recombinant IL17B R/Fc in a functional ELISA.

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. Hymowitz, S.G. *et al.* (2001) *EMBO J.* **20**:5332.
4. Haudenschild, D. *et al.* (2002) *J. Biol. Chem.* **277**:4309.
5. Starnes, T. *et al.* (2002) *J. Immunol.* **169**:642.
6. Li, H. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:773.

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