

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17D in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) IL-17, rhIL-17B, rhIL-17C, rhIL-17E, or rhIL-17F is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 246018
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-17D Ala18-Pro202 Accession # Q8TAD2.1
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

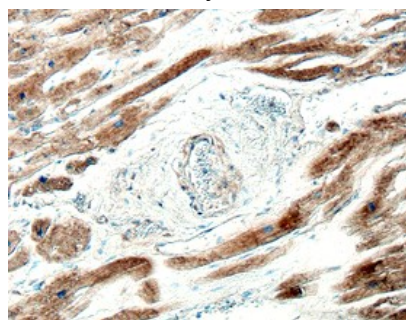
APPLICATIONS

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
Western Blot	1 µg/mL	Recombinant Human IL-17D (Catalog # 1504-IL) under non-reducing conditions only
Immunohistochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

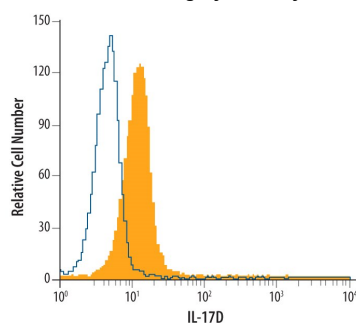
DATA

Immunohistochemistry



IL-17D in Human Heart. IL-17D was detected in immersion fixed paraffin-embedded sections of human heart using 25 µg/mL Human IL-17D Monoclonal Antibody (Catalog # MAB15041) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the sarcoplasm of cardiomyocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Intracellular Staining by Flow Cytometry



Detection of IL-17D in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells were stained with Human IL-17D Monoclonal Antibody (Catalog # MAB15041, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG F(ab')₂ Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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). 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).

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.