

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-17D in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human IL-17D, recombinant mouse (rm) IL-17, rmlIL-17B, rmlIL-17C, rmlIL-17E, or rmlIL-17F is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 312724
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-17D Ala25-Arg205 Accession # NP_665836
<b>Conjugate</b>	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
<b>Formulation</b>	Supplied 0.2 mg/mL 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
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Mouse splenocytes 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, 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, 6). 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, 6). 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 (1-6). Mouse IL-17D is synthesized as a 205 amino acid (aa) precursor that contains a putative 24 aa signal peptide and a 181 aa mature segment. The mature region contains two potential N-linked glycosylation sites and eight cysteines, four of which are involved in the formation of a modified cysteine-knot motif (5). The molecule is reported to exist as a 53 kDa disulfide-linked homodimer (2, 5). Given that its predicted homodimeric molecular weight is 40 kDa, the molecule is presumably glycosylated. In the mature region, mouse IL-17D is 88% aa identical to human IL-17D. There is less than 30% aa identity between mouse IL-17D and other members of the mouse IL-17 family. IL-17D is expressed in skeletal muscle, adipose tissue, fetal liver, and heart, plus resting CD4<sup>+</sup> T cells and CD19<sup>+</sup> B cells (1). R&D Systems has shown IL-17D binding to a mouse IL-17 R/Fc construct in a functional ELISA. IL-17D is known to induce the production of IL-8, IL-6 and GM-CSF (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. Kolls, J.K. and A. Linden (2004) *Immunity* **21**:467.

#### PRODUCT SPECIFIC NOTICES

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