

DESCRIPTION

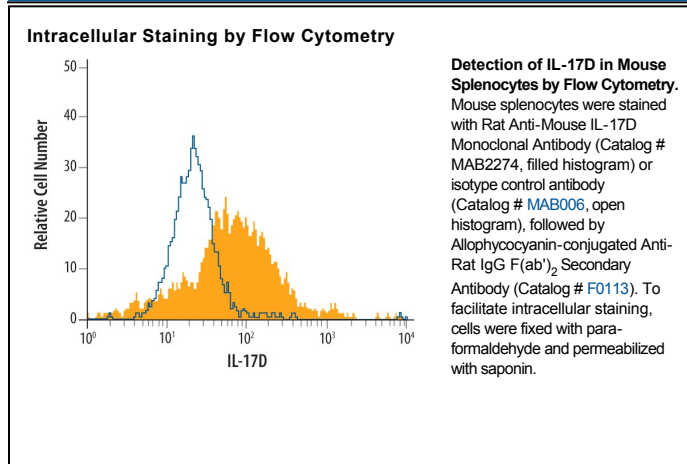
Species Reactivity	Mouse
Specificity	Detects mouse IL-17D in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human IL-17D, recombinant mouse (rm) IL-17, rmlL-17B, rmlL-17C, rmlL-17E, or rmlL-17F is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 312724
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-17D Ala25-Arg205 Accession # NP_665836
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 Mouse IL-17D (Catalog # 2274-ML)
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



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, 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⁺ T cells and CD19⁺ 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.
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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.