Mouse IL-17D Antibody

Monoclonal Rat IgG_{2A} Clone # 312724

Catalog Number: MAB2274

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, rmIL-17B, rmIL-17C, rmIL-17E, or rmIL-17F is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 312724
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-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 either lyophilized or as a 0.2 μm filtered solution in PBS.

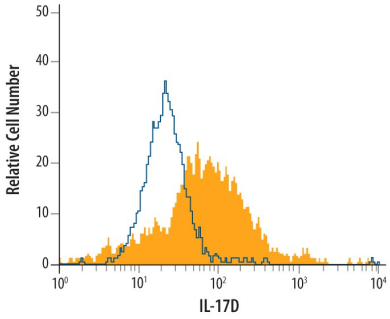
APPLICATIONS

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

Intracellular Staining by Flow Cytometry



Detection of IL-17D in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse IL-17D Monoclonal Antibody (Catalog # MAB2274, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG $F(ab')_2$ Secondary Antibody (Catalog # F0113). To facilitate intracellular staining, cells were fixed with para-formaldehyde 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.** ● 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.

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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:

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6. Kolls, J.K. and A. Linden (2004) Immunity **21**:467.

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