R&D SYSTEMS
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Human IL-17B Antibody

Monoclonal Mouse IgG_{2B} Clone # 174113

Catalog Number: MAB1248

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17B in Western blots and ELISAs. In Western blots, approximately 25% cross-reactivity with recombinant mouse IL-17B is observed and no cross-reactivity with recombinant human (rh) IL-17, rhIL-17C, rhIL-17E or rhIL-17F is observed. In sandwich immunoassays, less than 0.5% cross-reactivity with rmIL-17B, and no cross-reactivity with rhIL-17C, rhIL-17D, rhIL-17E, rhIL-17F, or rhIL-17 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 174113
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human IL-17B Gln21-Phe180 Accession # Q9UHF5
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.

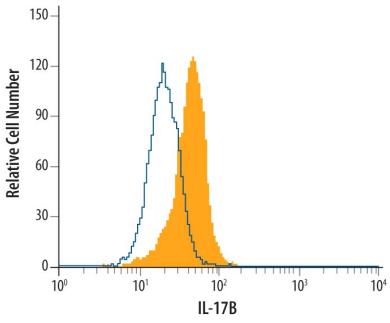
APPLICATIONS

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-17B (Catalog # 1248-IB)
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	See Below
Human IL-17B Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human IL-17B Antibody (Catalog # MAB1248)
ELISA Detection	0.5-2.0 µg/mL	Human IL-17B Biotinylated Antibody (Catalog # BAM12481)
Standard		Recombinant Human IL-17B (Catalog # 1248-IB)
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-17B in K562 Human Cell Line by Flow Cytometry. K562 human chronic myelogenous leukemia cell line was stained with Human IL-17B Monoclonal Antibody (Catalog # MAB1248, 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.** ● 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 cystine-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-17B cDNA encodes a 180 aa protein with a putative 20 aa signal peptide (5, 6). Human and mouse IL-17B share 88% amino acid sequence identity. Among IL-17 family members, IL-17B is most closely related to IL-17D, sharing 27% aa sequence homology. IL-17B is expressed highly in spinal cord, and at lower levels in brain, kidney, lung, small intestine, prostate, testes, pancreas, adrenal gland and trachea (5-7). Expression of IL-17B has also been detected in chondrocytes in articular cartilage (2). IL-17B binds the IL-17B receptor but not IL-17 R and exhibits bioactivities distinct from those of IL-17 (5, 6).

References:

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