Mouse IL-17F Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2057

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17F in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with recombinant human IL-17F, recombinant mouse (rm) IL-17, rmIL-17B, rmIL-17C, rmIL-17D, and rmIL-17E is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse IL-17F (R&D Systems, Catalog # 2057-IL) Arg29-Ala153 Accession # NP_665855
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	0.1 µg/mL	Recombinant Mouse IL-17F (Catalog # 2057-IL)
Immunocytochemistry	5-15 µg/mL	Immersion fixed mouse splenocytes treated with PMA, ionomycin, TGF-β and rmIL-6.
Mouse IL-17F Sandwich Immunoassay		**Reagent**
ELISA Capture	0.2-0.8 µg/mL	Mouse IL-17F Antibody (Catalog # AF2057)
ELISA Detection	0.1-0.4 µg/mL	Mouse IL-17F Biotinylated Antibody (Catalog # BAF2057)
Standard		Recombinant Mouse IL-17F (Catalog # 2057-IL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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.

BACKGROUND

The Interleukin 17 (IL-17) family proteins, comprised of six members (IL-17 and 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. With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers. IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2).

Mouse IL-17F cDNA encodes a 153 amino acid (aa) protein with a putative 20 aa signal peptide. Among IL-17 family members, IL-17F is most closely related to IL-17 sharing approximately 46% aa sequence identity. Mouse and human IL-17F share 55% sequence identity. IL-17F is expressed in activated $CD4^+$ T cells and activated monocytes. 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 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, 2, 5). The functions for IL-17 RC, D, and E are not known. Purified IL-17 R and IL-17B R do not bind IL-17F with high-affinity *in vitro*. However, binding of IL-17F is detected in cells transfected with IL-17 R, raising the possibility that a co-receptor may be required for IL-17F signaling through IL-17 R (4). The biological activities mediated by IL-17F are similar to those of IL-17. IL-17F stimulates production of IL-6, IL-8, G-CSF, and regulates cartilage matrix turnover by increasing matrix release and inhibiting new matrix synthesis (4). IL-17F also inhibits angiogenesis and induces production of IL-2, TGF-β, and monocyte chemoattractant protein-1 in endothelial cells (3).

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. Starnes, T. *et al.* (2001) J. Immunol. **167**:4137.
4. Hurst, S.D. *et al.* (2002) J. Immunol. **169**:443.
5. Haudenschild, D. *et al.* (2002) J. Biol. Chem. **277**:4309.