Human IL-17F Antibody

Monoclonal Mouse IgG_1 Clone # 775620

Catalog Number: MAB13352

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17F in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human IL-17A, recombinant mouse IL-17F, or recombinant rat IL-17F is observed.
Source	Monoclonal Mouse IgG_1 Clone # 775620
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-17F Gly21-Thr153 Accession # Q96PD4
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

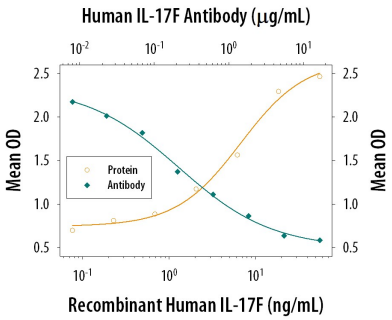
APPLICATIONS

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.*

Neutralization	Measured by its ability to neutralize IL−17F-induced IL-6 secretion in the NIH−3T3 mouse embryonic fibroblast cell line. Yao, Z. et al. (1995) Immunity 3:811.The Neutralization Dose (ND_{50}) is typically 0.1-0.6 µg/mL in the presence of 25 ng/mL Recombinant Human IL−17F.

DATA

Neutralization



IL-6 Secretion Induced by IL-17F and Neutralization by Human IL-17F Antibody. Recombinant Human IL-17F induces IL-6 secretion in the NIH-3T3 mouse embryonic fibroblast cell line in a dose-dependent response (orange line), as measured by the Mouse IL-6 Quantikine kit (Catalog # M6000B). Under these conditions, IL-6 secretion elicited by IL-17F is neutralized (green line) by increasing concentrations of Mouse Anti-Human IL-17F Monoclonal Antibody (Catalog # MAB13352). The ND_{50} is typically 0.1-0.6 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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-17A 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. 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).

Human IL-17F cDNA encodes a 163 aa protein with a putative 30 aa signal peptide. Among IL-17 family members, IL-17F is most closely related to IL-17A (approximately 44% aa sequence homology), but shares only limited sequence homology (16 - 30%) with IL-17B, C, D and E. Human and mouse IL-17F share 55% sequence identity. IL-17F is expressed in activated CD4+ T-cells and activated monocytes. Five receptors (IL-17 RA, B, C, D and E) have been identified (5). Although the ligands for IL-17 RD and E are not known yet, it is reported that IL-17 RA binds IL-17A, and IL-17 RB binds IL-17B and IL-17E. IL-17 RC binds IL-17A and IL-17F with similarly high affinity and functions as a receptor for both IL-17A and IL-17F (5, 6). 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. Shen, F. & S. L. Gaffen (2008) Cytokine **41**:92.
5. Kuestner, R.E. *et al.* (2007) J. Immunol. **179**:5462.