Mouse IL-17/IL-17A Antibody
Monoclonal Rat IgG_{2A} Clone # 50104
Catalog Number: MAB421

**DESCRIPTION**

<table>
<thead>
<tr>
<th>Species Reactivity</th>
<th>Mouse</th>
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<tbody>
<tr>
<td><strong>Specificity</strong></td>
<td>Detects mouse IL-17 in direct ELISAs and Western blots. In direct ELISAs, 100% reactivity with recombinant rat IL-17A and approximately 40% reactivity with recombinant mouse (rm) IL-17A/IL-17F heterodimer is observed. No cross-reactivity with recombinant human IL-17, recombinant canine IL-17, rmIL-17B, rmIL-17C, rmIL-17D, rmIL-17E, or rmIL-17F is observed.</td>
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<tr>
<td><strong>Source</strong></td>
<td>Monoclonal Rat IgG\textsubscript{2A} Clone # 50104</td>
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<tr>
<td><strong>Purification</strong></td>
<td>Protein A or G purified from hybridoma culture supernatant</td>
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<tr>
<td><strong>Immunogen</strong></td>
<td>E. coli-derived recombinant mouse IL-17 Thr22-Ala158 Accession # Q62386</td>
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<tr>
<td><strong>Endotoxin Level</strong></td>
<td>&lt;0.10 EU per 1 µg of the antibody by the LAL method.</td>
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<tr>
<td><strong>Formulation</strong></td>
<td>Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.</td>
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*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Recommended Concentration**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Western Blot</th>
<th>Neutralization</th>
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<tbody>
<tr>
<td>1 µg/mL</td>
<td>Measured by its ability to neutralize IL-17-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\textsubscript{50}) is typically 0.05-0.15 µg/mL in the presence of 10 ng/mL Recombinant Mouse IL-17.</td>
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</table>

**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.

**DATA**

**Western Blot** Detection of Recombinant Mouse IL-17/IL-17A by Western Blot. Western blot shows 25 ng of Recombinant Mouse IL-17/IL-17A (Catalog # 421-ML), Recombinant Human IL-17/IL-17A (Catalog # 317-ILB), Recombinant Rat IL-17/IL-17A (Catalog # 8410-IL), and Recombinant Mouse IL-17F (Catalog # 2057-IL) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HA005). A specific band was detected for IL-17/IL-17A at approximately 15 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 3.

**Neutralization** IL-6 Secretion Induced by IL-17 and Neutralization by Mouse IL-17 Antibody. Recombinant Mouse IL-17 (Catalog # 421-ML) stimulates IL-6 secretion in the NIH-3T3 mouse embryonic fibroblast cell line in a dose-dependent manner (orange line), as measured by the Mouse IL-6 Quantikine ELISA Kit (Catalog # M6000B). IL-6 secretion elicited by Recombinant Mouse IL-17 (10 ng/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse IL-17 Monoclonal Antibody (Catalog # MAB421). The ND\textsubscript{50} is typically 0.05-0.15 µg/mL.

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**BACKGROUND**

Interleukin 17 (also known as CTLA-8) is a T cell-expressed pleiotropic cytokine that exhibits a high degree of homology to a protein encoded by the ORF13 gene of herpes virus Saimiri. cDNA clones encoding IL-17 have been isolated from activated rat, mouse and human T cells. Mouse IL-17 cDNA encodes a 158 amino acid (aa) residue precursor protein with a 21 amino acid residue signal peptide that is cleaved to yield the 137 aa residue mature IL-17. Both recombinant and natural IL-17 have been shown to exist as disulfide linked homodimers. At the amino acid level, mIL-17 shows 57% and 87% sequence identity with herpesvirus and rat IL-17, respectively. An IL-17 specific mouse cell surface receptor (IL-17 R) has been cloned. While the expression of IL-17 mRNA is restricted to activated alpha beta TCR+CD4-CD8-T cells, the expression of mIL-17 R mRNA has been detected in virtually all cells and tissues tested. IL-17 exhibits multiple biological activities on a variety of cells including: the induction of IL-6 and IL-8 production in fibroblasts; the enhancement of surface expression of ICAM-1 in fibroblasts; activation of NF-κB and costimulation of T cell proliferation.

**References:**