**DESCRIPTION**

**Species Reactivity**  
Mouse

**Specificity**  
Detects mouse IL-23 p19 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant mouse IL-12/23 p40 is observed.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
*S. frugiperda* insect ovarian cell line Sf21-derived recombinant mouse IL-23 p19  
Met1-Ala196  
Accession # Q9EQ14

**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 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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tbody>
<tr>
<td>Recombinant Mouse IL-23 (Catalog # 1887-ML)</td>
<td>0.1 μg/mL</td>
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</table>

**Neutralization**  
Measured by its ability to neutralize IL-23-induced IL-17 secretion in mouse splenocytes. Aggarwal, S. et al. (2003) J. Biol. Chem. 278:1910. The Neutralization Dose (ND90) is typically 0.07-0.35 μg/mL in the presence of 0.75 ng/mL Recombinant Mouse IL-23 and 10 ng/mL Recombinant Mouse IL-2.

**DATA**

**Neutralization**  
IL-17 secretion induced by IL-23 and Neutralization by Mouse IL-23 Antibody. In the presence of Recombinant Mouse IL-2 (10 ng/mL, Catalog # 402-ML), Recombinant Mouse IL-23 (Catalog # 1887-ML) stimulates IL-17 secretion in mouse splenocytes in a dose-dependent manner (orange line), as measured by the Mouse IL-17 Quantikine ELISA Kit (Catalog # M1700). Under these conditions, IL-17 secretion elicited by Recombinant Mouse IL-23 (0.75 ng/mL) is neutralized (green line) by increasing concentrations of Mouse IL-23 p19 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1619). The ND90 is typically 0.07-0.35 μg/mL.

**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.
Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12 (1-5). The p19 subunit has homology to the p35 subunit of IL-12, as well as to other single chain cytokines such as IL-6 and IL-11. The p40 subunit is homologous to the extracellular domains of the hematopoietic cytokine receptors. Mouse p19 cDNA encodes a 196 amino acid (aa) residue precursor protein with a putative 19 aa signal peptide and 177 aa mature protein. Human and mouse p19 share 70% aa sequence identity. Although p19 is expressed by activated macrophages, dendritic cells, T cells, and endothelial cells, only activated macrophages and dendritic cells express p40 concurrently to produce IL-23. The functional IL-23 receptor complex consists of two receptor subunits, the IL-12 receptor beta 1 subunit (IL-12 Rβ1) and the IL-23-specific receptor subunit (IL-23 R). IL-23 has biological activities that are similar to, but distinct from IL-12. Both IL-12 and IL-23 induce proliferation and IFNγ production by human T cells. While IL-12 acts on both naïve and memory human T cells, the effects of IL-23 is restricted to memory T cells. In mouse, IL-23 but not IL-12, has also been shown to induce memory T cells to secret IL-17, a potent proinflammatory cytokine. IL-12 and IL-23 can induce IL-12 production from mouse splenic DC of both the CD8⁻ and CD8⁺ subtypes, however only IL-23 can act directly on CD8⁺ DC to mediate immunogenic presentation of poorly immunogenic tumor/self peptide.

References: