

## DESCRIPTION

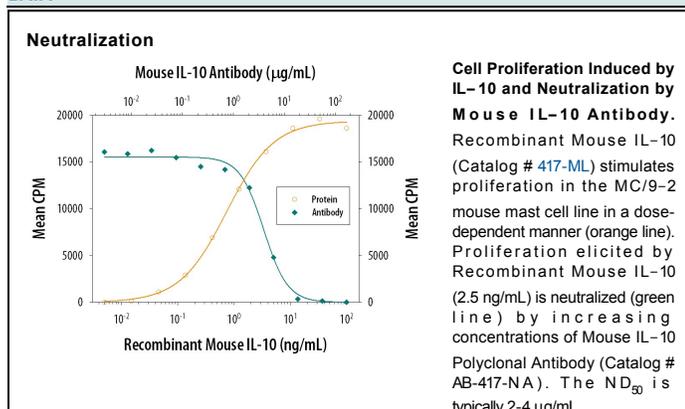
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-10 in Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human IL-10 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Protein A or G purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-10 Ser19-Ser178 Accession # NP_034678
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

## 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
<b>Western Blot</b>	1 µg/mL	Recombinant Mouse IL-10 (Catalog # 417-ML)
<b>Neutralization</b>		Measured by its ability to neutralize IL-10-induced proliferation in the MC/9-2 mouse mast cell line [Thompson-Snipes, L. <i>et al.</i> (1991) <i>J. Exp. Med.</i> <b>173</b> :507]. The Neutralization Dose (ND <sub>50</sub> ) is typically 2-4 µg/mL in the presence of 2.5 ng/mL Recombinant Mouse IL-10.

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 1 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Interleukin 10, also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of  $\alpha$ -helical cytokines that also includes IL-19, IL-20, IL-22, and IL-24 (1, 2). IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts (2-5). Mature mouse IL-10 shares 85% amino acid sequence identity with rat and 70%-77% with bovine, canine, equine, feline, human, ovine, and porcine IL-10. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells (6, 7). IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer (8-10). The IL-10 dimer binds to two IL-10 R $\alpha$ /IL-10 R1 chains, resulting in recruitment of two IL-10 R $\beta$ /IL-10 R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3 (11). IL-10 R $\beta$  does not bind IL-10 by itself but is required for signal transduction (1). IL-10 R $\beta$  also associates with IL-20 R $\alpha$ , IL-22 R $\alpha$ , or IL-28 R $\alpha$  to form the receptor complexes for IL-22, IL-26, IL-28, and IL-29 (12-14). IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation (15-17). It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses (2).

## References:

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