

## DESCRIPTION

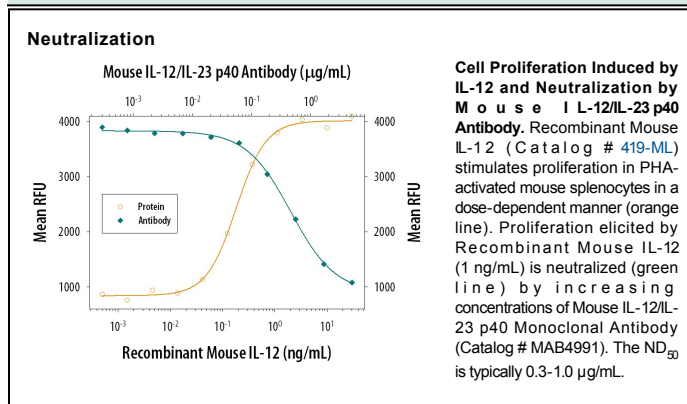
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects the mouse IL-12/IL-23 p40 subunit. Polymorphisms exist in the mouse p40 sequences [Ymer, S. <i>et al.</i> (2002) <i>Genes and Immunity</i> 3:151.].
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # C17.8
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Recombinant mouse IL-12 p70 heterodimer
<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. *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
<b>Western Blot</b>	1 µg/mL	Recombinant Mouse IL-12/IL-23 p40 Homodimer (Catalog # 499-ML) under non-reducing conditions only
<b>Mouse IL-12/IL-23 p40 Nonallele-specific Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Mouse IL-12/IL-23 p40 Antibody (Catalog # MAB4991)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Mouse IL-12/IL-23 p40 Biotinylated Antibody (Catalog # BAF499)
<b>Standard</b>		Recombinant Mouse IL-12/IL-23 p40 Homodimer (Catalog # 499-ML)
<b>Neutralization</b>	Measured by its ability to neutralize IL-12-induced proliferation in PHA-activated mouse splenocytes. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.3-1.0 µg/mL in the presence of 1 ng/mL Recombinant Mouse IL-12.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<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 12, also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine originally identified in the medium of activated human B lymphoblastoid cell lines. IL-12 has multiple effects on T cells and NK cells and is a key mediator in the development of Th1 cells.

IL-12 is a heterodimeric cytokine containing two disulfide-linked subunits, p35 and p40. Human and mouse IL-12 share 70% and 60% amino acid sequence identity in their p40 and p35 subunits, respectively. Although mouse IL-12 is active on human or mouse IL-12 responsive cells, human IL-12 is not active on mouse cells.

The disulfide-linked mouse p40 homodimer can bind to IL-12 receptors and is an antagonist of IL-12 activities *in vitro*. The mouse p40 monomer is at least ten times less active than the homodimer as an IL-12 antagonist. At the present time, the existence and the physiological role of mouse p40 homodimer *in vivo* remains to be determined.