

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-12 p40 in ELISAs. Polymorphisms exist in the mouse IL-12 p40 sequence. This antibody recognizes an allelic epitope found in the p40 subunit of several mouse strains including BALB/c, C57BL/6, CBA, C3H, DBA/1, NOR, I29/J, and A.SW. This antibody does not recognize the allelic variant that occurs in strains AKR, DBA/2, NOD, NZB, NZC, NZO, NZW, or SJL (1). In ELISAs, this antibody shows 100% cross-reactivity with recombinant mouse (rm) IL-23, 30% cross-reactivity with rmIL-12 p70, and no cross-reactivity with recombinant human (rh) IL-12 p70 or rhIL-12 p40.
Source	Monoclonal Rat IgG _{2B} Clone # 30517
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-12 p40
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.

Mouse IL-12/IL-23 p40 Allele-specific Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Mouse IL-12/IL-23 p40 Antibody (Catalog # MAB499)
ELISA Detection	0.1-0.4 µg/mL	Mouse IL-12/IL-23 p40 Biotinylated Antibody (Catalog # BAF499)
Standard		Recombinant Mouse IL-12/IL-23 p40 Homodimer (Catalog # 499-ML)

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> 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.

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.

References:

- Ymer, S. *et al.* (2002) *Genes and Immunity* 3:151.