

DESCRIPTION

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| 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 Sf21-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 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

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| 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. <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:

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