For Research Use Only

## NeutraKine® IL-12/IL-23 p40 Mouse McAb

www.ptglab.com

**Purification Method:** 

Protein G purification

CloneNo.:

2A9H6

Catalog Number: 69006-1-Ig

**Basic Information** 

Catalog Number: GenBank Accession Number:

69006-1-lg BC067498 GeneID (NCBI): Size: 100ug 51561,3593 **UNIPROT ID:** Source: Mouse P29460

lgG1 interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic Immunogen Catalog Number: lymphocyte maturation factor 2, p40) HZ-1254

Full Name:

Calculated MW: 328 aa, 37 kDa

**Applications** 

**Tested Applications:** Neutralization, ELISA Species Specificity:

human

Isotype:

Positive Controls:

Neutralization: mouse splenocytes, ELISA: Recombinant protein,

## **Background Information**

IL-12 and IL-23 are heterodimeric cytokines that share a common p40 subunit (PMID: 11114383). IL-12 is composed of the IL-12 p40 subunit linked to the IL-12 p35 subunit, and the heterodimer signals through the IL-12 receptor (IL-12R), which comprises the IL-12R\(\beta\) 1 and IL-12R\(\beta\)2 subunits. IL-23 is composed of the IL-23 p19 subunit and the IL-12  $p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, through \, IL-23R \, and \, IL-12R\beta1 \, (PMID: \, 11114383; \, 26121196 \, ). \, IL-12/IL-23 \, p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, through \, IL-23R \, and \, IL-12R\beta1 \, (PMID: \, 11114383; \, 26121196 \, ). \, IL-12/IL-23 \, p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, through \, IL-23R \, and \, IL-12R\beta1 \, (PMID: \, 11114383; \, 26121196 \, ). \, IL-12/IL-23 \, p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, through \, IL-23R \, and \, IL-12R\beta1 \, (PMID: \, 11114383; \, 26121196 \, ). \, IL-12/IL-23 \, p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, through \, IL-23R \, and \, IL-12R\beta1 \, (PMID: \, 11114383; \, 26121196 \, ). \, IL-12/IL-23 \, p40 \, (IL-12/23p40) \, subunit, \, which \, signals \, subunit, \, subun$ also exists as a monomer and as a homodimer which can act as a potent IL-12 antagonist (PMID: 8958912; 18783467). IL-12/IL-23 p40 is produced by antigen-presenting cells, such as dendritic cells (DCs), monocytes, macrophages, neutrophils and, to a lesser extent, B cells (PMID: 20476918).

This antibody can be used to neutralize the bioactivity of IL-12/IL-23 p40.

Storage

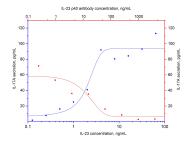
Lyophilized antibodies are stable for 1 year from the date of receipt if stored between (-20°C) and (-80°C). Upon reconstitution we recommend that the solution can be stored at (4°C) for short term or at (-20°C) to (-80°C) for long term. Repeated freeze thaw cycles should be avoided with reconstituted products.

Storage Buffer: Sterile PBS, pH7.4

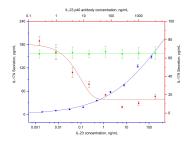
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

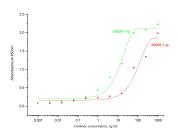
## **Selected Validation Data**



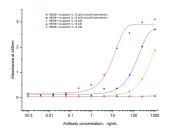
Recombinant human IL-23 (Cat.NO. HZ-1254) induces invitro cultured mouse splenocytes to secret IL-17A in a dose-dependent manner (blue curve, refer to bottom X-left Y). The activity of human IL-23 (4 ng/mL HZ-1254) is neutralized by mouse anti-human IL-23 p40 monoclonal antibody 69006-1-lg at serial dose (red curve, refer to top X-right Y). The ND50 is typically 8-30 ng/mL



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Indirect ELISA was carried out by coating recombinant Human IL-23 (Cat.NO. HZ-1254) at 70 ng/well followed by blocking and adding serial diluted IL-23 antibody 69006-1-Ig and 69506-1-Ig respectively. Signal was developed with TMB and stopped by H2SO4. Signal strength was measured by absorbance at 450 nm.



Indirect ELISA was carried out by coating recombinant Human IL-12 (Cat.NO. HZ-1256) and IL-12 p40 (Cat.NO. HZ-1321) respectively at 70 ng/well followed by blocking and adding serial diluted 69029-1-Ig, 69529-1-Ig and 69006-1-Ig respectively. HRP-goat antimouse was used for detection. Signal was developed with TMB and stopped by H2504. Signal strength was measured by absorbance at 450 nm. The result suggests that 69029-1-Ig and 69529-1-Ig only recognize IL-12(p35