

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Mouse  |
| <b>Specificity</b>        | Detects mouse IL-9 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human IL-9 is observed.  |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 222604  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-9<br>Gln19-Pro144<br>Accession # P15247.1   |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells | Mouse splenocytes treated with anti-CD3/anti-CD28, Recombinant Mouse IL-4 (Catalog # 404-ML), Human TGF-β1 (Catalog # 100-B), and PMA/Ionomycin to induce Th9 development. |

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                  |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

Mouse IL-9 was originally identified as a T cell-derived T cell growth factor III/P40 which could support the long term growth of certain mouse T helper clones in the absence of antigen or antigen-presenting cells. IL-9 can also prolong the *in vitro* survival of other T cell clones as well as potentiate the IL-2 dependent proliferation of mouse fetal thymocytes. However, this cytokine has no growth-stimulating activity on mouse cytolytic T cell clones or fresh T cells. Mouse IL-9 also has mast cell enhancing activity (MEA) and can enhance the mIL-3- or mIL-4-dependent proliferation of mouse bone marrow-derived mast cells. Furthermore, IL-9 will synergize with erythropoietin to support erythroid colony formation *in vitro*. The mouse IL-9 cDNA encodes a 144 amino acid residue precursor protein with an 18 amino acid signal peptide that is cleaved to form the mature cysteine-rich protein with a predicted molecular mass of 14 kDa. Mouse IL-9 contains four potential N-linked glycosylation sites and the native mIL-9 is a highly glycosylated protein. Human and mouse IL-9 share 56% amino acid sequence homology. Although mouse IL-9 is active on human cells, human IL-9 is not active on mouse cells.

#### References:

1. Renaud, J.E. *et al.* (1995) *J. Leukoc. Biol* **57**:303.

#### PRODUCT SPECIFIC NOTICES

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