



## Product Information

### Macrophage Inflammatory Protein 1 $\alpha$ (MIP-1 $\alpha$ )

#### Mouse, Recombinant

Expressed in *E. coli*

#### Product No. M-6167

#### Product Description

Mouse Macrophage Inflammatory Protein-1 $\alpha$  (MIP-1 $\alpha$ ) was initially purified from medium conditioned by LPS-stimulated mouse macrophages.<sup>1</sup> Mouse recombinant MIP-1 $\alpha$  has an amino acid sequence which is identical to the natural occurring protein and consists of 69 amino acids. MIP-1 $\alpha$  belongs to the chemokine  $\beta$  subfamily characterized by a C-C configuration at the first two cysteines. MIP-1 $\alpha$  has endogenous pyrogenic activity when it is injected intravenously into rabbits.<sup>2</sup> Although other chemokines, such as IL-1 $\alpha$ , IL-1 $\beta$  and TNF have endogenous pyrogenic activity, the effect can be inhibited by cyclooxygenase blocker; the pyrogenicity of MIP-1 $\alpha$  is unaffected by these agents.<sup>3</sup> MIP-1 $\alpha$  can synergize with the hematopoietic growth factors granulocyte-macrophage CSF (GM-CSF) or macrophage CSF (M-CSF) to enhance colony formation.<sup>4</sup>

The biological activity of MIP-1 $\alpha$  was tested in culture by measuring its ability to inhibit hematopoietic stem cell proliferation in an *in vitro* colony assay.<sup>5</sup>

#### Reagents

Lyophilized from 0.2  $\mu$ m-filtered solution of 30% acetonitrile, 0.1% trifluoroacetic acid (TFA), pH 2.0, containing 500  $\mu$ g bovine serum albumin as a carrier protein.

#### Precautions and Disclaimer

This product is for research use only. Consult the MSDS for information regarding hazards and safe handling practices.

#### Storage/Stability

Store at 20 °C.

After reconstitution, store at 0-5 °C for a maximum of 3 months. For extended storage, freeze in working aliquots at 70 °C or 20 °C. Repeated freezing and thawing is not recommended.

#### References

1. Wolpe, S. D., et al., J. Exp. Med., **167**, 570 (1988).
2. Davatellis, G., et al., Science, **243**, 1066 (1989).
3. Miller, M. D., and Krangel, M. S., et al., Critical Review in Immunology, **12**, 17 (1992).
4. Broxmeyer, H., et al., J. Exp. Med., **170**, 1583 (1989).
5. Graham, G. J., et al., Nature, **344**, 442 (1990).

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