Product No. M-6542
Macrophage Inflammatory Protein - 1β (MIP-1β)
Mouse, Recombinant
Expressed in *E. coli*

Description

MIP-1α and MIP-1β (macrophage inflammatory protein) were originally co-purified from LPS stimulated mouse macrophages.[1] Recombinant, mouse MIP-1β (rmMIP-1β) consists of 69 amino acids. MIP-1β belongs to the chemokine β subfamily which is characterized by a C-C configuration at the first two cysteines. MIP-1β has endogenous pyrogenic activity when it is injected intravenously into rabbits.[2] Although other cytokines, such as IL-1α, IL-1β and TNF have endogenous pyrogenic activity, the pyrogenic effects of these cytokines can be inhibited by cyclooxgenase blockers, while the pyrogenicity of MIP-1βis unaffected by these agents.[3] MIP-1β can synergize with the hematopoietic growth factors granulocyte-macrophage CSF (GM-CSF) or macrophage CSF (M-CSF) to enhance colony formation.[4]

Performance Characteristics

The biological activity of MIP-1β was tested in culture by measuring its ability to inhibit hematopoietic stem cell proliferation in an *in vitro* colony assay.[5]

Product Information

Expressed in: *E. coli*
Molecular Weight: 7.8 kD
Purity: ≥ 97% pure by SDS-PAGE and N-terminal analysis
EC_{50}: 40 - 100 ng/ml
Package Size: 10 µg

Formulaion: Lyophilized from 30% acetonitrile and 0.1% trifluoroacetic acid.
Carrier Protein: 500 µg bovine serum albumin (BSA).
Sterility: 0.2 µm-filtered, aseptic fill
Endotoxin: ≤ 0.1 ng/µg MIP-1β

Reconstitution and Use

Reconstitute the contents of the vial using 0.2 µm-filtered PBS containing 0.1% BSA to a concentration not less than 1 µg/ml.

Storage

Prior to reconstitution, 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., et al., J. Exp. Med., **167**, 570 (1988).
2. Davatelis, G., et al., Science, **243**, 1066 (1989).
3. Miller, M., et al., Critical Reviews in Immunology, **12**, 17 (1992).
4. Broxmeyer, H., et al., J. Exp. Med., **170**, 1583 (1989).
5. Graham, G., et al., Nature, **344**, 442 (1990).