
Human MIF Recombinant Protein

Catalog Number: 14-8500

RUO: For Research Use Only

Product Information

Contents: Human MIF Recombinant Protein

REF Catalog Number: 14-8500

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

Source: *E. coli*

Purity: Greater than 97%, as determined by SDS-PAGE


Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: The optimal range of activity found in an agarose microdroplet assay using human U937 cells is 0.25-1ug/ml.

Formulation: Sterile liquid: phosphate buffered saline, pH 7.2, 1.0% BSA. 0.22 µm filtered.

 Temperature Limitation: Store at less than or equal to -70°C.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

Description

MIF (migration inhibitory factor, or macrophage migration inhibitory factor, MMIF) is an inflammatory mediator in response to bacterial lipopolysaccharide. MIF stimulates IL-1, IL-8 and MMP expression on fibroblasts. MIF stimulates NO and TNF-alpha production on macrophages. The secretion of MIF is regulated by steroids and MIF counter-regulates the immunosuppressive effects of steroids on immune response and cytokine induction. Therefore MIF plays an important role in endotoxemia and septic shock. The expression of MIF activity is correlated with delayed hypersensitivity and cellular immunity. It has been reported that the expression of MIF is significantly increased in cardiomyocytes in chronic hypoxia and the expression of MIF is implicated in cancer pathogenesis.

Human MIF is a non-glycosylated polypeptide consisting of 115 amino acids with a molecular weight of 12.5 kDa.

Applications Reported

Recombinant human MIF is biologically active in an agarose microdroplet assay.

Applications Tested

This reagent has been tested in an agarose microdroplet assay. The optimal range of activity measured by percentage of migration inhibition on U937 cells was 0.25-1µg/ml.

References

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Koebnick, H. Grode, L. David, J. R. Rohde, W. Rolph, M. S. Mittrucker, H.-W. Kaufmann, S. H. E. Macrophage migration inhibitory factor (MIF) plays a pivotal role in immunity against *Salmonella typhimurium*. *Proc. Nat. Acad. Sci.* 2002; 99: 13681-13686.

Roger, T. David, J. Glauser, M. P. Calandra, T. MIF regulates innate immune response through modulation of Toll-like receptor 4. *Nature* 2001; 414: 920-924.

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