## **Purified Rabbit Anti-rat MIF**

Catalog Number: TP234

*Lot Number:* 032415

**Content:** Protein A purified rabbit IgG, 200 μg, with 0.1% sodium azide, lyophilized.

(Reconstitute to 1 mg/ml by adding 200 µl PBS)

**Product Description and Usage**: For research use only. This polyclonal antibody, which reacts with both mouse and rat MIF, was generated using *E. coli*-expressed full-length rat MIF as an immunogen. The tested titer for Western blot is 1:2,000; and for immunoprecipitation, 1:500.

Cross-reactivity to MIF of other species has not been determined.

*Storage Condition:* 4 C for short term storage or -20 C in small aliquots for long term storage. Avoid repeated freeze and thaw.

**Background**: MIF (macrophage migration inhibitory factor) was one of the first cytokine activities to be discovered and was initially described as a T cell-derived factor that inhibit the random migration of macrophages<sup>1</sup>. Recently, MIF was rediscovered as a pituitary hormone that act as the counterregulatory hormone for glucocorticoid action within the immune system<sup>2,3</sup>. MIF was released from macrophages and T cells in response to - 21.5kD - 14.3kD MIF detected by Western Blot in LPS stimulated

RAW cell lysate

physiological concentrations of glucocorticoids. The secreted MIF counter-regulates the immunosuppressive effects of steroids on immune cell activation and cytokine production<sup>4</sup>. MIF plays a critical role in the host control of imflammation and immunity.

## References:

- 1. Weiser, W.Y. et al. (1989) Molecular cloning of a cDNA encoding a human macrophage migration inhibitory factor. *Proc Natl Acad Sci USA* 86:7522-7526
- 2. Bernhagen, J. et al. (1993) Macrophage migration inhibitory factor (MIF) is a pituitary-derived cytokine that potentiates lethal endotoxaemia. *Nature* 365:756-759
- 3. Mitchell, R. et al. (1995) Cloning and characterization of the gene for mouse macrophage migration inhibitory factor (MIF). *J Immunol* 154:3863-3870
- 4. Bucala, R. (1998) Neuroimmunomodulation by macrophage migration inhibitory factor (MIF). *Ann N Y Acad Sci* 840:74-82

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