

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects human and mouse MIF in direct ELISAs and human, mouse and rat MIF in Western blots.                                                                                                                                                                                 |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse MIF<br>Pro2-Ala115<br>Accession # NP_034928                                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### 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> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

MIF (Macrophage Inhibitory Factor; also GIF) is a 12-13 kDa member of the MIF family of proteins. Although secreted, it possesses no definitive signal sequence. MIF is widely expressed, and serves to regulate immune reactions. On macrophages and B cells, MIF binds to a CD74:CD44 complex, initiating downstream signaling. On monocytes, this promotes TNF- $\alpha$  production plus IFN- $\gamma$ -stimulated NO production. On B cells, this promotes B cell survival. MIF also binds to leukocyte CD74:CXCR2 and CD74:CXCR4 heterodimers, initiating T cell and monocyte migration. A tautomerase activity has also been shown for MIF, but the significance of this is unclear. Mouse MIF is 114 amino acids (aa) in length. Its tautomerase activity is suggested to involve the entire length of the molecule. MIF is phosphorylated at Ser91, and an additional, singular Cys residue is covalently linked to MIF at Cys60. MIF is considered to act as a homotrimer. Full-length mouse MIF shows 90% and 99% aa sequence identity with human and rat MIF, respectively.

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