

Recombinant Rat MIF Protein(Sumo Tag)

Catalog Number: PDER100140

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

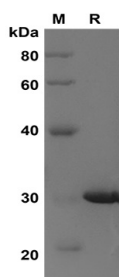
Description

Species	Rat
Source	E.coli-derived Rat MIF protein Pro2-Ala115, with an N-terminal Sumo
Calculated MW	25.4 kDa
Observed MW	30 kDa
Accession	P30904
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat MIF proteins, 2µg/lane of ReCombinant Rat MIF proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 30 KD

Background

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Macrophage migration inhibitory factor (MIF) is an immunoregulatory cytokine, the effect of which on arresting random immune cell movement was recognized several decades ago. Despite its historic name, MIF also has a direct chemokine-like function and promotes cell recruitment. MIF is a ubiquitously expressed protein that plays a crucial role in many inflammatory and autoimmune disorders. Increasing evidence suggests that MIF also controls metabolic and inflammatory processes underlying the development of metabolic pathologies associated with obesity. Further research has shown that MIF plays a particularly critical part in cell cycle regulation and therefore in tumorigenesis as well. The significance of the role of MIF in a variety of both solid and hematologic tumors has been established. More recently, interest has increased in the role of MIF in the development of the central nervous system (CNS) tumors, in which it appears to influence cell cycle control. MIF contributes to malignant disease progression on several different levels. Both circulating and intracellular MIF protein levels are elevated in cancer patients and MIF expression reportedly correlates with stage, metastatic spread, and disease-free survival. Blockade of MIF bioactivity successfully inhibited tumor cell growth in vivo and in vitro. MIF plays important role in the pathogenesis of gastrointestinal, hepatic, and pancreatic disorders.