Human MIF protein, His and GST tag

Cat. No. GTX00197-pro

Applications	Functional Assay
Species	Human

Package
10 µg

Applications

Application Note

Macrophage migration inhibitory factor (MIF), also known as glycosylation-inhibiting factor (GIF), L-dopachrome isomerase, or phenylpyruvate tautomerase is a protein classified as an inflammatory cytokine. MIF is an important regulator of innate immunity. It involved in cell-mediated immunity, immunoregulation, and inflammation. MIF plays a role in the regulation of macrophage function in host defense through the suppression of anti-inflammatory effects of glucocorticoids. This lymphokine and the JAB1 protein form a complex in the cytosol near the peripheral plasma membrane, which may indicate a role in integrin signaling pathways. Besides, Major Histocompatibility Complex Class II Invariant Chain (MHCDG) has been identified as an interactor of MIF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human MIF and recombinant human MHCDG. Briefly, MIF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to MHCDG-coated microtiter wells and incubated for 2h at 37ºC. Wells were washed with PBST and incubated for 1h with anti-MIF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37ºC. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of MIF and MHCDG was in a dose dependent manner.

Observed MW (kDa)	44 kDa.

Properties

Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4ºC. For long-term storage, store at -20ºC or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal His and GST-Tag; Met3~Asn111 (NP_002406.1)
Expression System	E. coli
Purity	> 95%
Endotoxin	< 1 EU/µg
Conjugation	Unconjugated
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

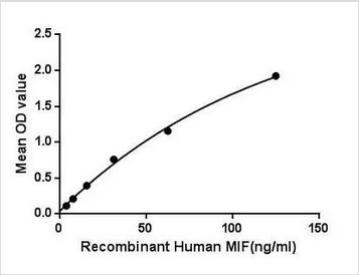
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GeneTex, Inc. (North America)
1-877-436-3839 (Toll-free) 1-949-309-2888 sales@genetex.com

GeneTex International Corporation (Global)
886-3-6208988 886-3-6208989 infoasia@genetex.com

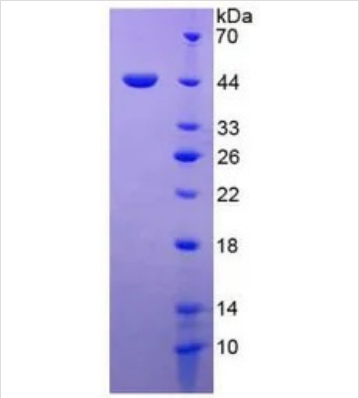
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DATA IMAGES



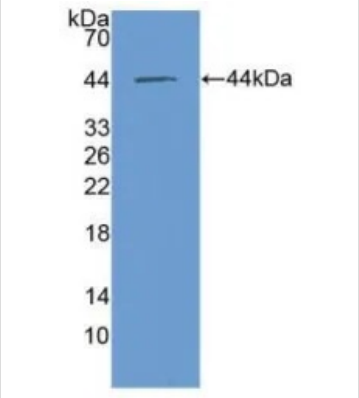
GTX00197-pro Functional Assay Image

Functional ELISA analysis of GTX00197-pro Human MIF protein which can bind immobilized MHCDG protein.



GTX00197-pro Image

SDS-PAGE analysis of GTX00197-pro Human MIF protein.



GTX00197-pro Image

WB analysis of GTX00197-pro Human MIF protein.

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