abcam

Product datasheet

Anti-MIF antibody [EPR12463] - BSA and Azide free ab183302

KO VALIDATED Recombinant RabMAb

7 Images

Overview

Product name	Anti-MIF antibody [EPR12463] - BSA and Azide free
Description	Rabbit monoclonal [EPR12463] to MIF - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HAP1, HeLa and HepG2 cell lysates.
General notes	ab183302 is the carrier-free version of **ab175189**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12463
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab183302 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 12 kDa.
IP		Use at an assay dependent concentration.

Target

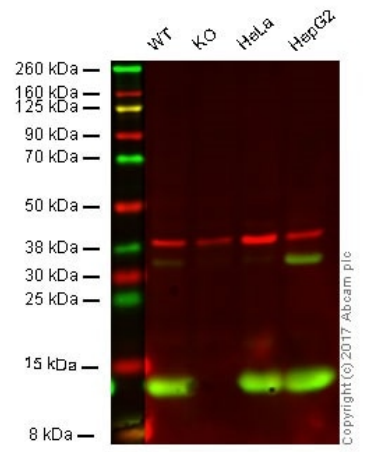
Function Pro-inflammatory cytokine. Involved in the innate immune response to bacterial pathogens. The expression of MIF at sites of inflammation suggests a role as mediator in regulating the function of macrophages in host defense. Counteracts the anti-inflammatory activity of glucocorticoids. Has phenylpyruvate tautomerase and dopachrome tautomerase activity (in vitro), but the physiological substrate is not known. It is not clear whether the tautomerase activity has any physiological relevance, and whether it is important for cytokine activity.

Involvement in disease Genetic variations in MIF are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis.

Sequence similarities Belongs to the MIF family.

Cellular localization Secreted. Cytoplasm. Does not have a cleavable signal sequence and is secreted via a specialized, non-classical pathway. Secreted by macrophages upon stimulation by bacterial lipopolysaccharide (LPS), or by M.tuberculosis antigens.

Images



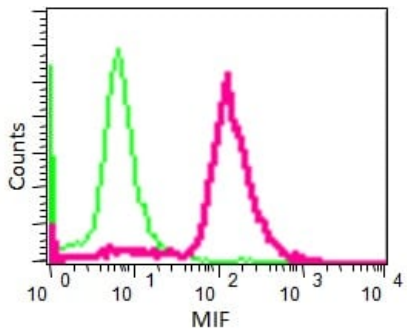
Western blot - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: MIF knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: HepG2 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - **ab175189** observed at 12 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab175189 was shown to specifically react with MIF in wild-type HAP1 cells along with additional cross-reactive bands. No bands were observed when knockout cells were examined. Wild-type and MIF knockout samples were subjected to SDS-PAGE. Ab175189 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1/2,0000 dilution for 1 hour at room temperature before imaging.

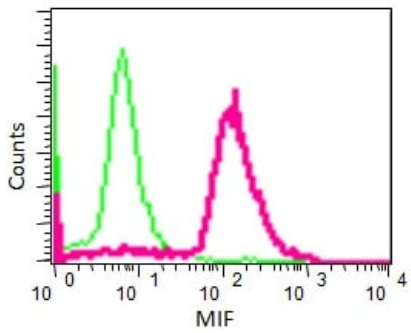
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).



Flow Cytometry (Intracellular) - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

Intracellular Flow Cytometry analysis of THP-1 cells labelling MIF with unpurified **ab175189** at 1/50 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary anitbody. A rabbit monoclonal IgG was used as the isotype control (green).

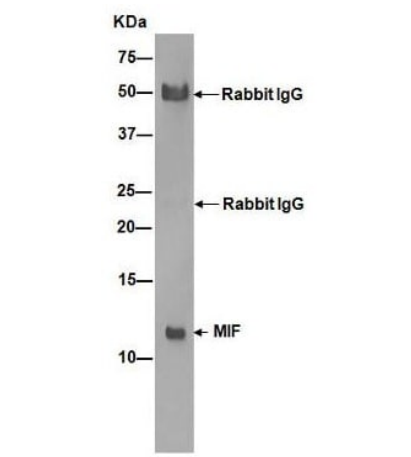
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).



Flow Cytometry (Intracellular) - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

Intracellular Flow Cytometry analysis of THP-1 cells labelling MIF with purified **ab175189** at 1/140 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary anitbody. A rabbit monoclonal IgG was used as the isotype control (green).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).



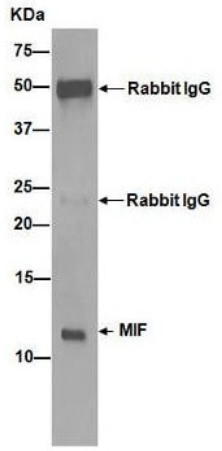
Immunoprecipitation - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

ab175189 (unpurified) at 1/30 immunoprecipitating MIF in human fetal brain. For western blotting, a Peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).



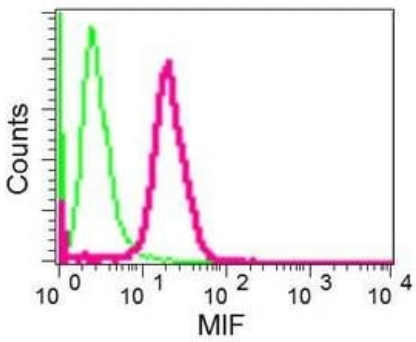
Immunoprecipitation - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

ab175189 (purified) at 1/50 immunoprecipitating MIF in human fetal brain. For western blotting, a Peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/1000).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).



Flow Cytometry (Intracellular) - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

Intracellular flow cytometric analysis of permeabilized Molt-4 cells using unpurified **ab175189** at a 1/10 dilution (red) or a rabbit IgG (negative) (green).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab175189**).

Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

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