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:** WB, IP, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human MIF aa 50 to the C-terminus (Cysteine residue). The exact sequence is proprietary. Database link: P14174
Positive control	WB: HAP1, HeLa and HepG2 cell lysates.
General notes	Ab183302 is the carrier-free version of ab175189. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab183302 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *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. Reproducibility is key to advancing scientific discovery and accelerating scientists' next

breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

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

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

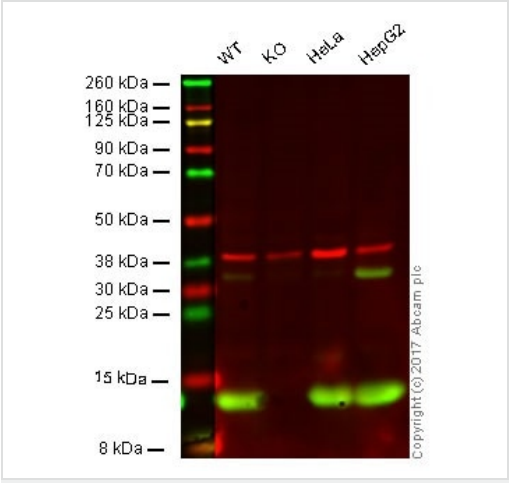
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

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



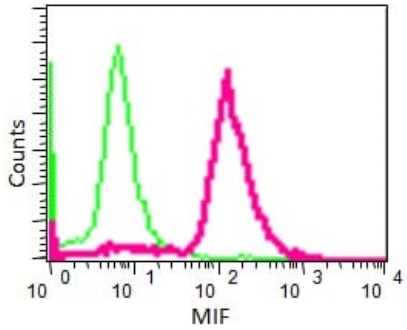
Western blot - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

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.

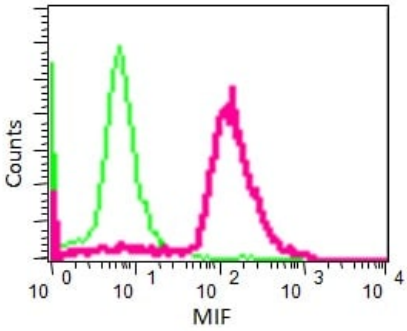
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab175189).



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

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).

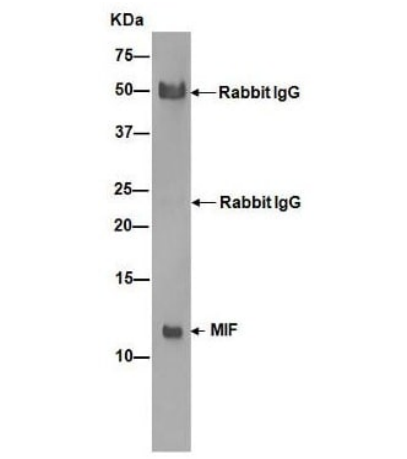
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab175189).



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

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).



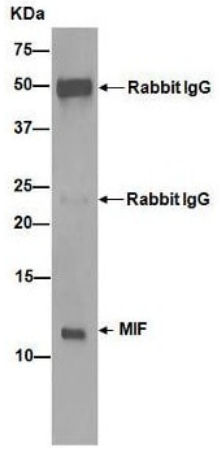
Immunoprecipitation - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

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).

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Diluting buffer and concentration: 5% NFDM /TBST.

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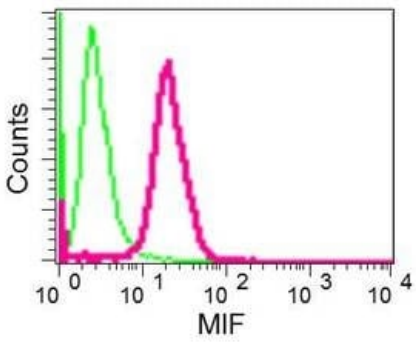
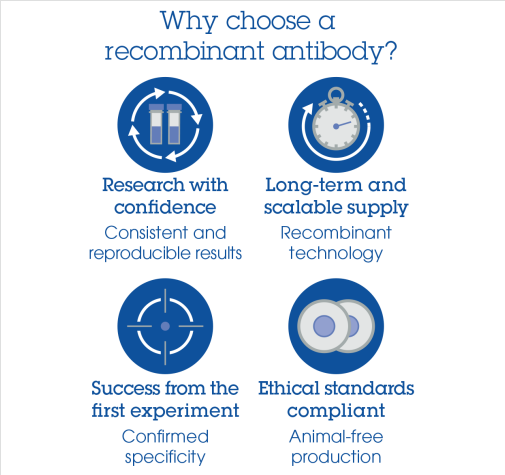


Flow Cytometry - Anti-MIF antibody [EPR12463] - BSA and Azide free (ab183302)

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)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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