abcam

ab314057

Anti-MIF antibody [BLR141J] - BSA free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human MIF aa 1 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P14174
Clone number	BLR141J
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

ICC

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information MIF

Function	Pro-inflammatory cytokine involved in the innate immune response to bacterial pathogens (PubMed:15908412, PubMed:17443469, PubMed:23776208). The expression of MIF at sites of inflammation suggests a role as mediator in regulating the function of macrophages in host defense (PubMed:15908412, PubMed:17443469, PubMed:23776208). Counteracts the anti-inflammatory activity of glucocorticoids (PubMed:15908412, PubMed:17443469, PubMed:23776208). Has phenylpyruvate tautomerase and dopachrome tautomerase activity (in vitro), but the physiological substrate is not known (PubMed:11439086, PubMed:17526494). It is not clear whether the tautomerase activity has any physiological relevance, and whether it is important for cytokine activity (PubMed:11439086, PubMed:17526494).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Macrophage migration inhibitory factor (MIF) also known as glycosylation-inhibiting factor is a protein with a molecular mass of approximately 12.5 kDa. It plays a mechanistic role as a cytokine that regulates immune responses specifically influencing macrophage behavior. MIF expresses in various cell types including immune and epithelial cells. It gets secreted by activated lymphocytes and macrophages pointing to its involvement in the inflammatory process.
Biological function summary	MIF acts as an upstream regulator of innate immunity and exerts broad influence on cytokine release. MIF elevates pro-inflammatory cytokines like TNF-alpha and IL-1beta promoting an immune response. It does not typically form part of a complex but interacts with cell surface receptors like CD74 triggering intracellular signaling pathways. These interactions illustrate MIF as a regulator of immune cell recruitment and activation.
Pathways	MIF participates in the glucocorticoid receptor regulatory pathway and MAP kinase pathway. It shows interaction with JNK and ERK1/2 proteins which further map into important cellular reactions like stress response and cell proliferation. By integrating into these pathways MIF influences cell survival proliferation and inflammatory cascades emphasizing its role in immune regulation.
Associated diseases and disorders	MIF links to inflammatory diseases such as rheumatoid arthritis and sepsis. It influences disease progression by interacting with proteins like TNF-alpha and IL-6 contributing to inflammatory damage. Elevated MIF levels often correlate with disease severity in rheumatoid arthritis acting as a potential target for therapy. Furthermore sepsis demonstrates a similar pattern where MIF modulation can impact patient outcomes underlining its relevance in clinical investigations.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

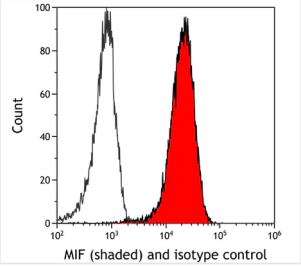
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

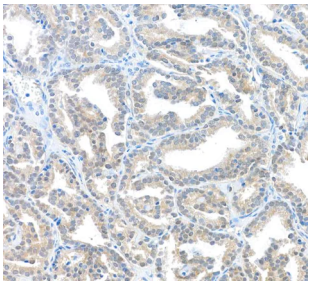
Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



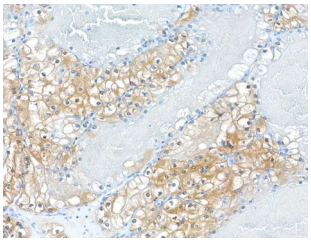
Flow Cytometry - Anti-MIF antibody [BLR141J] - BSA free (ab314057)

Detection of human MIF (shaded) in Jurkat cells by flow cytometry. Antibody: Rabbit anti-MIF recombinant monoclonal antibody [BLR141J] or isotype control (unshaded). Secondary: DyLight® 488-conjugated goat anti-rabbit IgG.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MIF antibody [BLR141J] - BSA free (ab314057)

Detection of human MIF in FFPE prostate carcinoma by immunohistochemistry Antibody: Rabbit anti-MIF recombinant monoclonal antibody [BLR141H] (A700-141 lot 1). Secondary: HRP-conjugated goat anti-rabbit IgG Substrate:DAB.



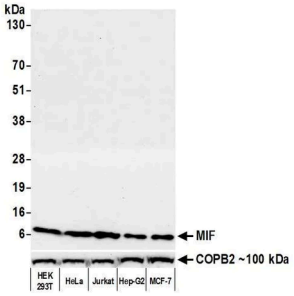
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MIF antibody [BLR141J] - BSA free (ab314057)

Detection of human MIF in FFPE renal cell carcinoma by immunohistochemistry Antibody:Rabbit anti-MIF recombinant monoclonal antibody [BLR141H] (A700-141 lot 1). Secondary:HRP-conjugated goat anti-rabbit IgG Substrate:DAB.



Immunocytochemistry - Anti-MIF antibody [BLR141J] - BSA free (ab314057)

Detection of human MIF in FFPE HEK293T cells by immunocytochemistry Antibody:Rabbit anti-MIF recombinant monoclonal antibody [BLR141H] (A700-141 lot 1). Secondary:HRP-conjugated goat anti-rabbit IgG . Substrate:DAB.



Western blot - Anti-MIF antibody [BLR141J] - BSA free (ab314057)

Samples:Whole cell lysate (25 µg) from HEK293T, HeLa, Jurkat, Hep-G2, and MCF-7 cells prepared using NETN lysis buffer. Antibody:Rabbit anti-MIF recombinant monoclonal antibody [BLR141J] used at 1:1000. Secondary:H RP-conjugated goat anti-rabbit IgG. Chemiluminescence with an exposure time of 10 seconds. Lower Panel: Rabbit anti-COPB2 antibody (A304-523A).
All lanes:
Western blot - Anti-MIF antibody [BLR141J] - BSA free (ab314057) at 1/1000 dilution

Lane 1:
HEK293T Whole cell lysate at 25 µg

Lane 2:
HeLa Whole cell lysate at 25 µg

Lane 3:
Jurkat Whole cell lysate at 25 µg

Lane 4:
Hep-G2 Whole cell lysate at 25 µg

Lane 5:
MCF-7 Whole cell lysate at 25 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.