abcam

Product datasheet

Anti-MIF antibody ab55445

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Overview

Product name	Anti-MIF antibody
Description	Mouse monoclonal to MIF
Host species	Mouse
Tested applications	**Suitable for:** IHC-P, WB, Flow Cyt
Species reactivity	**Reacts with:** Human, Recombinant fragment
Immunogen	Recombinant full length protein, corresponding to amino acids 1-116 of Human MIF
General notes	Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We would recommend antibody ab7207 as a replacement.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Isotype	IgG1
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab55445** 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
IHC-P	★★★★★	Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 - 5 µg/ml.
Flow Cyt		Use 1µg for 10^6 cells. ab170190 - Mouse monoclonal IgG1, 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.

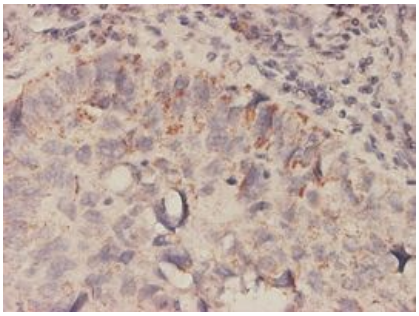
Sequence similarities

Belongs to the MIF family.

Cellular localization

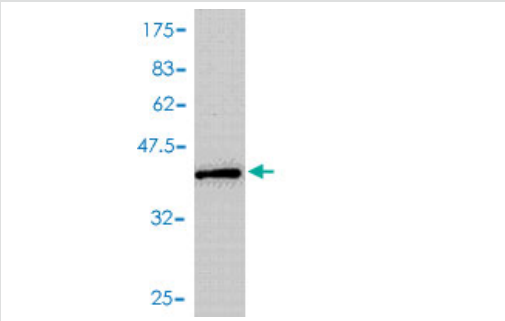
Secreted. Cytoplasm. Does not have a cleavable signal sequence and is secreted via a specialized, non-classical pathway. Secreted by macrophages upon stimulation by bacterial lipopolysaccharide (LPS), or by M.tuberculosis antigens.

Images



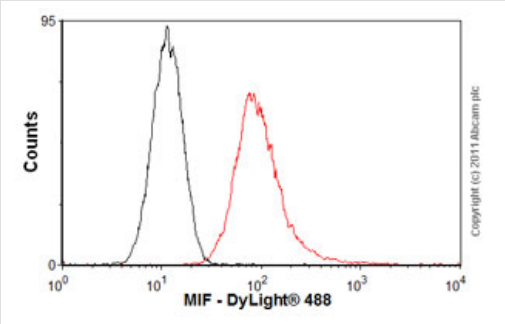
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MIF antibody (ab55445)

MIF antibody (ab55445) used in immunohistochemistry at 5ug/ml on formalin fixed and paraffin embedded human lung, adenosqumous cell carcinoma tissue.



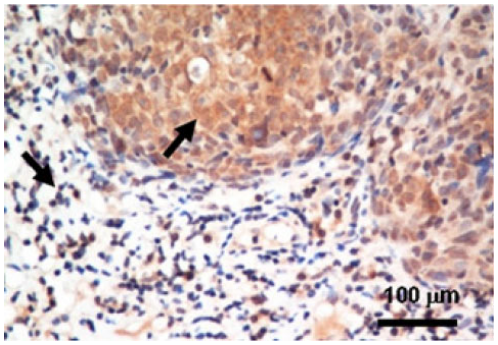
Western blot - Anti-MIF antibody (ab55445)

Western blot against tagged recombinant protein immunogen using ab55445 MIF antibody at 1ug/ml. Predicted band size of immunogen is 38 kDa



Flow Cytometry - Anti-MIF antibody (ab55445)

Overlay histogram showing Jurkat cells stained with ab55445 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab55445, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MIF antibody (ab55445)

Image from Li J et al., J Biol Chem. 2012 Oct 12;287(42):35484-95. doi: 10.1074/jbc.M112.367532. Epub 2012 Aug 14.Fig 7.; October 12, 2012 The Journal of Biological Chemistry, 287, 35484-35495.

Immunohistochemical analysis of Human nasopharyngeal carcinoma, staining MIF with ab55445 at 1/100 dilution.

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