abcam

ab7632

Anti-IL-1 alpha antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.88% Sodium chloride, 0.424% Potassium phosphate solution
Form	Liquid
Clonality	Polyclonal
Immunogen	Recombinant Full Length Protein corresponding to Human IL1A. Database link P01583
Purity	IgG fraction
Specificity	This antibody is primarily directed against the 17,000 MW human IL-1a and is useful in determining its presence in various assays. In general, this antibody also detects primate IL-1a in the same formats using similar dilutions. The antiserum does not recognize human IL-1b or Mouse or Rabbit IL-1a. In ELISA formats and other immunoreactive assays, this antibody will recognize both the mature 17,000 MW IL-1a as well as the 31,000 MW IL-1a precursor in either non-denatured (native) or denatured samples. Unlike the IL-1b precursor, the native precursor of IL-1a is recognized by the antibody produced to the 17,000 MW form. The 31,000 precursor of IL-1a is biologically active and is found primarily intracellularly. The precursor of IL-1a, unlike that of IL-1b, is biologically active when applied to cells and is thought to have a role as a functional molecule intracellularly and can be found constitutively expressed in various cell. This antibody is also useful for neutralization of human and primate IL-1a activity in bioassays. It does not neutralize the biological activity IL-1b. It does not neutralize the biological activity of mouse, rat or rabbit IL-1a. It will neutralize primate IL-a. For neutralization, it is recommended to incubate the sample with a 1:100 dilution of the antibody for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG is recommended. This antibody can be used for FACS analysis. Caution should be exhibited as the F(c) domain of the rabbit IgG molecule may interact with cells non-specifically.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Purification notes	whole rabbit serum purified by DEAE fractionation

Reactivity data

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Primates
Dilution info	-
Notes	-

ELISA

Expected

Species	Mouse
Dilution info	1/1000 - 1/5000
Notes	-

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

WB

Expected

Species	Mouse
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

IHC-P

Expected

Species	Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Primates
Dilution info	-
Notes	-

Target data

See full target information IL1A

Function

Cytokine constitutively present intracellularly in nearly all resting non-hematopoietic cells that plays an important role in inflammation and bridges the innate and adaptive immune systems (PubMed:26439902). After binding to its receptor IL1R1 together with its accessory protein IL1RAP, forms the high affinity interleukin-1 receptor complex (PubMed:17507369, PubMed:2950091). Signaling involves the recruitment of adapter molecules such as MYD88, IRAK1 or IRAK4 (PubMed:17507369). In turn, mediates the activation of NF-kappa-B and the three MAPK pathways p38, p42/p44 and JNK pathways (PubMed:14687581). Within the cell, acts as an alarmin and cell death results in its liberation in the extracellular space after disruption of the cell membrane to induce inflammation and alert the host to injury or damage (PubMed:15679580). In addition to its role as a danger signal, which occurs when the cytokine is passively released by cell necrosis, directly senses DNA damage and acts as a signal for genotoxic stress without loss of cell integrity (PubMed:26439902).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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

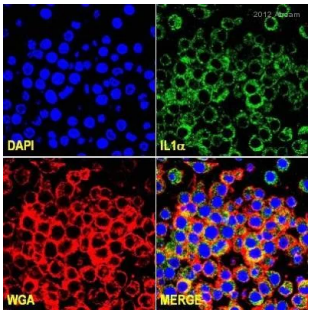
We do not recommend this combination. It is not covered by our product promise.

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.

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Terms & Conditions.

1 product image



Dr Mahesh Shivananjappa

Immunocytochemistry/ Immunofluorescence - Anti-IL-1 alpha antibody (ab7632)

IL-1 alpha Immunocytochemistry/ Immunofluorescence staining of RAW 264.7 (mouse macrophage cell line) cells using rabbit Anti-IL-1 alpha antibody

Immunocytochemical analysis of RAW 264.7 (mouse macrophage) cells labeling IL-1 alpha with ab7632 at a dilution of 1/100. Cells were fixed with paraformaldehyde, permeabilized using 0.1% Triton X-100 in 2% BSA for 15 minutes, and blocked with 2% BSA for 1 hour at 4°C. Cells were incubated with ab7632 for 16 hours at 4°C in 2% BSA/PBS. IL-1 alpha was detected using an Alexa Fluor® 488-conjugated chicken polyclonal anti-rabbit IgG (H+L) secondary antibody (green) at a dilution of 1/500. Cell membranes were counterstained with WGA (red) and nuclei were counterstained with DAPI (blue).

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