abcam

ab33451

Anti-Monocyte + Macrophage antibody [MOMA-2]

Key facts

Isotype	IgG2b
Host species	Rat
Storage buffer	Preservative: 0.09% Sodium azide
Form	Liquid
Clonality	Monoclonal
Clone number	MOMA-2
Purification technique	Affinity purification Protein G
Specificity	This antibody recognises an intracellular antigen of mouse macrophages and monocytes. It reacts strongly with macrophages in lymphoid organs in all mouse strains tested. Staining may also be seen on the epithelium of mucosa.
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Mouse
Dilution info	-
Notes	Membrane permeabilisation is required for this application. ab18536 - Rat monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

IHC-FoFr

Expected

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

IHC-P

Expected

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

IHC-Fr

Expected

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

Target data

See full target information Mouse Monocyte

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

Supplementary info

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

Activity summary	Monocytes and macrophages often referred to as MO or MOMa-2 are types of white blood cells that play essential roles in the immune system. Monocytes which express various mouse monocyte markers develop in the bone marrow and circulate in the bloodstream. They typically measure about 12 to 15 micrometers in diameter. Monocytes migrate to tissues where they differentiate into macrophages. These macrophages are larger typically 20 micrometers and reside in tissues throughout the body. Macrophages are characterized by their large irregular shape and possess a great ability to engulf pathogens and debris.
Biological function summary	Monocytes and macrophages help protect the body from infection and clear injured tissue. They operate as part of the innate immune response and also contribute to the adaptive immune response. Macrophages in particular are known for their phagocytic activity where they engulf and digest microorganisms cellular debris and other particles. They secrete cytokines and chemokines that recruit other immune cells to sites of infection or injury. Monocyte to macrophage differentiation allows for the transformation from a circulating cell to a tissue-resident cell adapting to specific tissue functions.
Pathways	Monocytes and macrophages are integral to the inflammatory and immune response pathways. These cells are involved in the Toll-like receptor (TLR) signaling pathway which detects pathogens and initiates immune defense mechanisms. They also participate in the nuclear factor kappa-light-chain-enhancer of activated B cells (NF-κB) pathway regulating cytokine production and cell survival. Macrophages interact with a wide range of proteins including tumor necrosis factor-alpha (TNF-α) which plays an essential role in inflammation and apoptosis.
Associated diseases and disorders	Monocytes and macrophages are linked to chronic inflammatory diseases and infections. Their dysfunction or overactivation has been observed in disorders like atherosclerosis and rheumatoid arthritis. In atherosclerosis macrophages accumulate lipids becoming foam cells and contributing to plaque development with an interaction seen with low density lipoprotein (LDL). In rheumatoid arthritis macrophages release pro-inflammatory cytokines exacerbating joint inflammation and damage often relating to the presence of interleukin-1 (IL-1).

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.

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