abcam

ab227031

Anti-GM-CSF antibody [EPR23689-17]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG1
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23689-17
Purification technique	Affinity purification Protein A
Concentration	0.543 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Rat

Dilution info	-
Notes	-

Target data

See full target information CSF2

Function	Cytokine that stimulates the growth and differentiation of hematopoietic precursor cells from various lineages, including granulocytes, macrophages, eosinophils and erythrocytes.

Storage

Shipped at conditions	Conditional Ambient
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

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

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

Activity summary	GM-CSF also known as Granulocyte-Macrophage Colony-Stimulating Factor is a glycoprotein with a mass of approximately 23 kDa. This protein plays a mechanical role in stimulating the differentiation and proliferation of hematopoietic progenitor cells into granulocytes and macrophages. Its expression occurs in various cell types including macrophages T cells endothelial cells and fibroblasts. GM-CSF interacts with its specific receptor known as CSF2 receptor to exert its effects.
Biological function summary	GM-CSF influences the immune system by enhancing the functional capacity of mature neutrophils macrophages and eosinophils. GM-CSF protein acts alone and not as part of a larger protein complex. It is important in regulating immune responses and inflammation. Due to its role in promoting the survival and activation of these immune cells GM-CSF is important for mounting an effective immune defense in response to infections and other challenges.
Pathways	GM-CSF signaling is integral to the JAK-STAT pathway. This pathway is essential for transmitting signals from surface receptors like GM-CSF receptors into the nucleus thereby inducing gene expression that leads to cell survival and proliferation. GM-CSF also intersects with the ERK1/ERK2 MAPK pathway which is involved in regulating cellular processes such as division and differentiation. The GM-CSF receptor shares similarities with other cytokine receptors involved in these pathways making it related to various cytokines through its downstream signaling effects.
Associated diseases and disorders	GM-CSF has a well-established connection to diseases like rheumatoid arthritis and multiple sclerosis. In rheumatoid arthritis overproduction of GM-CSF is linked to chronic inflammation and joint damage. In multiple sclerosis GM-CSF might contribute to the pathological immune responses against the central nervous system. Antibodies targeting GM-CSF or its receptor represent a therapeutic strategy for these autoimmune diseases. By modulating GM-CSF activity therapeutic approaches aim to reduce inflammation and autoimmunity highlighting the protein's importance in disease progression.

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.

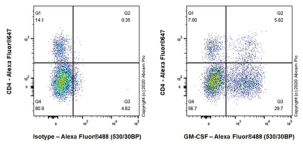
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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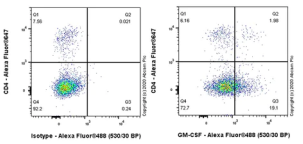
2 product images



Flow Cytometry (Intracellular) - Anti-GM-CSF antibody [EPR23689-17] (ab227031)

GM-CSF Flow Cytometry (Intracellular) staining using rabbit Anti-GM-CSF antibody

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized Human peripheral blood mononuclear cell (PBMC) treated with cell stimulation cocktail (80nM PMA+1.34uM Ionomycin+10.6uM Brefeldin A+2uM Monensin) for 6 hours cells labelling GM-CSF with ab227031 at 1/50 dilution Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Cells were stained with anti-CD4 conjugated to Alexa Fluor® 647. Then fixed with 2% PFA followed by intracellularly stained with rabbit IgG or ab227031.



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