abcam

ab33760

Anti-Granulocytes antibody [HIS48]

Key facts

Isotype	IgM
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: 8% Fetal calf serum, 3.16% Tris HCl
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Granulocytes protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	HIS48
Purity	Tissue culture supernatant
Specificity	ab3760 recognises granulocytes and erythroid cells.

Reactivity data

Flow Cyt

Expected

Species	Rat
Dilution info	-
Notes	ab91545 - Mouse monoclonal IgM, is suitable for use as an isotype control with this antibody.

IHC-P

Expected

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

ICC/IF

Expected

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

IHC-Fr

Expected

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

Target data

See full target information Granulocytes

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

Supplementary info

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

Activity summary	Granulocytes also known as polymorphonuclear leukocytes are immune cells essential for the body's defense mechanism against infections. These cells have a distinct lobed nucleus and are filled with granules that contain enzymes and other biologically active molecules. Weighing between 12-15 kilodaltons granulocytes are expressed in the bone marrow and circulate in the blood. They are classified into three types: neutrophils eosinophils and basophils each with unique granule content and functions.
Biological function summary	Granulocytes play a critical role in the innate immune response by engaging in phagocytosis degranulation and the release of cytokines. Neutrophils are part of the myeloid cell lineage and act as the body's first line of defense by engulfing and destroying pathogens. Eosinophils control parasitic infections and allergic responses while basophils release histamine in allergic reactions. Granulocytes work in coordination with other immune cells such as lymphocytes to form a complex immune system network.
Pathways	Granulocytes participate in pathways that involve inflammatory response and allergic reaction. Neutrophils are integral to the signaling pathway associated with the production of reactive oxygen species which helps eliminate pathogens. This process is linked with proteins like NADPH oxidase. Additionally other pathways involve eosinophils and basophils in modulating immune reactions through cytokine secretion which can also involve mediators like interleukin-5.
Associated diseases and disorders	Granulocytes have been linked to conditions like chronic granulomatous disease and asthma. Chronic granulomatous disease results from a deficiency in NADPH oxidase impairing the granulocytes' ability to produce reactive oxygen species leading to recurrent infections. Asthma involves an overactive immune response with increased eosinophil activity contributing to airway inflammation. In these contexts granulocytes interact with other proteins including interleukins to modulate the 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.

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