abcam

ab53453

FITC Anti-Neutrophil antibody [7/4]

Anti-Neutrophil antibody [7/4] conjugated to FITC - suitable for flow cytometry, IHC-FoFr, IHC-Fr, IHC-P, and reacts with mouse samples. Clone [46119] is a rat monoclonal antibody.

Key facts

Isotype	IgG2a
Host species	Rat
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Neutrophil protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	7/4
Purification technique	Affinity purification Protein G
Specificity	Rat anti mouse Ly-6B.2, clone 7/4 recognizes the Ly-6B.2 antigen in 129J; AKR; C57BL/6; C57BL/10; C58; DBA/2; NZB; NZW; SJL; MFI; Swiss (PO) strains. A2G; A/Sn; ASW; BALB/c; C3H/HEH: CBA.T6T6 are negative or demonstrate very weak reactivity.
Epitope	Recognizes the Ly-6B.2 antigen.
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	Use 10µl of the working dilution to label 10^6 cells in 100µl. ab18446 - Rat monoclonal IgG2a, 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

Tested

Species	Mouse
Dilution info	-
Notes	-

IHC-Fr

Expected

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

Target data

See full target information Neutrophil

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab53453 recognizes the Ly-6B.2 antigen. Ly-6B.2 is a ~25-30 kDa GPI-anchored, heavily glycosylated protein expressed on neutrophils, inflammatory monocytes and some activated macrophages. High levels of expression are seen in bone marrow, spleen, lung and lymph nodes. N-glycanase treatment of thioglycollate elicited peritoneal neutrophil lysates lowers the apparent molecular weight of Ly-6B.2 to ~15 kDa.
ab53453 has been successfully used for the immunomagnetic depletion of neutrophils during the enrichment of primitive hematopoietic cells from bone marrow and the depletion of myeloid cells *in vivo*.

Supplementary info

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

Activity summary	Neutrophils also known as polymorphonuclear leukocytes are a type of white blood cell essential in the immune response. These cells make up around 50-70% of the total white blood cells in human circulation. Neutrophils express various surface markers including Ly6B.2 and NIMP-R14 which are important for their identification. The typical lifespan of neutrophils is short about 6 to 24 hours and they have an approximate mass of 1.4 x 10^-12 g per cell. Neutrophils primarily reside in the bloodstream but can migrate into tissues during inflammation or infection.
Biological function summary	Neutrophils play a central role in innate immunity by engulfing and destroying pathogens through phagocytosis. They exist as part of a network with other immune cells and contribute to the release of enzymes and reactive oxygen species to combat infection. Neutrophils can also secrete granules containing antimicrobial substances. Their activity is coordinated with other components of the immune system to provide an immediate response to infections and tissue injuries.
Pathways	Neutrophils participate actively in inflammatory and immune responses. They are important in pathways like the leukocyte adhesion cascade and the oxidative burst pathway. These pathways involve interactions with proteins such as integrins and

	NADPH oxidase which help neutrophils adhere to endothelium and generate reactive oxygen species respectively. These interactions permit neutrophils to migrate to sites of inflammation and eliminate invading pathogens efficiently.
Associated diseases and disorders	Neutrophils relate to conditions such as chronic granulomatous disease and rheumatoid arthritis. In chronic granulomatous disease defects in components like NADPH oxidase result in an impaired ability to produce reactive oxygen species leading to recurrent infections. In rheumatoid arthritis neutrophils contribute to inflammation and joint damage through the release of enzymes and reactive oxygen intermediates. Neutrophil interactions with immune complexes in these disorders highlight the importance of their regulation in maintaining immune homeostasis.

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

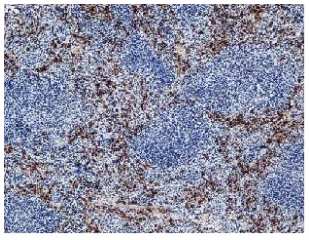
We do not recommend this combination. It is not covered by our product promise.

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.

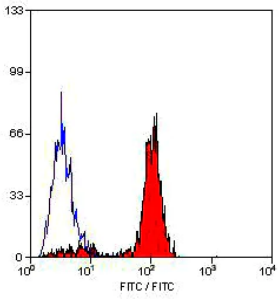
2 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - FITC Anti-Neutrophil antibody [7/4] (ab53453)

Neutrophil Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rat Anti-Neutrophil antibody

Immunohistochemical analysis of mouse spleen cryosection tissue stained for Neutrophil using ab53453.



Flow Cytometry - FITC Anti-Neutrophil antibody [7/4] (ab53453)

Neutrophil Flow Cytometry staining using rat Anti-Neutrophil antibody

Staining of New Zealand Black mouse peripheral blood granulocytes with Rat anti mouse neutrophil:FITC (ab53453).

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