

Neutrophil Marker (6A608): sc-71674

BACKGROUND

Neutrophils, also referred to as neutrophil granulocytes, are the most abundant type of white blood cell. As integral parts of the mammalian immune system, neutrophils deal with defense against bacterial infection and other minute inflammatory behaviors. Neutrophils respond to bacterial infection swiftly, and are often the first reaction of the immune system. Endothelium mast cells and macrophages express copious amounts of cytokines, immediately attracting extremely migratory neutrophils to congregate at the site of infection. Capable of ingesting microorganisms and even other particles, individual neutrophils exist only through the execution of one major phagocytic event, utilizing all of their energy reserves in a powerful "respiratory burst". In addition, neutrophils release a variety of proteins in three different types of granules: specific, azurophilic and tertiary granules. Neutrophil anti-microbial products can also destroy host tissues.

REFERENCES

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3. Lamana, A., et al. 2006. The role of CD69 in acute neutrophil-mediated inflammation. *Eur. J. Immunol.* 36: 2632-2638.
4. McNamee, L.A. et al. 2006. Both influenza-induced neutrophil dysfunction and neutrophil-independent mechanisms contribute to increased susceptibility to a secondary *Streptococcus pneumoniae* infection. *Infect. Immun.* 74: 6707-6721.
5. Fenk, R., et al. 2006. Sustained G-CSF plasma levels following administration of pegfilgrastim fasten neutrophil reconstitution after high-dose chemotherapy and autologous blood stem cell transplantation in patients with multiple myeloma. *Exp. Hematol.* 34: 1296-1302.
6. Alves, G.J., et al. 2006. Cohabitation with a sick cage mate: effects on noradrenaline turnover and neutrophil activity. *Neurosci. Res.* 56: 172-179.

SOURCE

Neutrophil Marker (6A608) is a rat monoclonal antibody raised against neutrophils of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Neutrophil Marker (6A608) is recommended for detection of neutrophils of mouse origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

1. Liu, S., et al. 2012. Autophagy plays a critical role in kidney tubule maintenance, aging and ischemia-reperfusion injury. *Autophagy* 8: 826-837.
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3. Zenobia, C., et al. 2013. Commensal bacteria-dependent select expression of CXCL2 contributes to periodontal tissue homeostasis. *Cell. Microbiol.* 15: 1419-1426.
4. Bei, Y., et al. 2013. Long-term treatment with fasudil improves bleomycin-induced pulmonary fibrosis and pulmonary hypertension via inhibition of Smad2/3 phosphorylation. *Pulm. Pharmacol. Ther.* 26: 635-643.
5. Zhou, S., et al. 2013. Aging does not enhance experimental cigarette smoke-induced COPD in the mouse. *PLoS ONE* 8: e71410.
6. Nguyen, K.T., et al. 2013. Deficient cytokine expression and neutrophil oxidative burst contribute to impaired cutaneous wound healing in diabetic, biofilm-containing chronic wounds. *Wound Repair Regen.* 21: 833-841.
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8. Kim, J.E., et al. 2015. *Salmonella typhimurium* suppresses tumor growth via the pro-inflammatory cytokine Interleukin-1 β . *Theranostics* 5: 1328-1342.
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RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.