

Ly-6G (RB6-8C5): sc-53515

BACKGROUND

Ly-6G (lymphocyte antigen 6G) belongs to the Ly-6 family of glycosyl-phosphatidylinositol (GPI)-linked proteins. Ly-6 family members share amino acid homology throughout a distinctive cysteine rich protein domain that incorporates O-linked carbohydrates. Murine Ly-6 molecules have unique patterns of tissue expression during hematopoiesis from multipotential stem cells to lineage committed precursor cells, and on specific leukocyte subpopulations in the peripheral lymphoid tissues. Ly-6G contains one UPAR/Ly6 domain and is expressed almost exclusively on neutrophils localizing to the cell membrane. Ly-6G together with Ly-6C make up the Gr-1 antigen. The Gr-1 antigen is expressed on monocytes, neutrophils and a subset of macrophages, plasmacytoid dendritic cells and T cells. Cells expressing Gr-1 may play a role in the suppression of antitumor and T cell responses. Ly-6G is commonly used as a surface marker for neutrophils.

CHROMOSOMAL LOCATION

Genetic locus: Ly6g (mouse) mapping to 15 D3.

SOURCE

Ly-6G (RB6-8C5) is a rat monoclonal antibody raised against granulocytes of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ly-6G (RB6-8C5) is available conjugated to agarose (sc-53515 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53515 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53515 PE), fluorescein (sc-53515 FITC), Alexa Fluor® 488 (sc-53515 AF488), Alexa Fluor® 546 (sc-53515 AF546), Alexa Fluor® 594 (sc-53515 AF594) or Alexa Fluor® 647 (sc-53515 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53515 AF680) or Alexa Fluor® 790 (sc-53515 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Ly-6G (RB6-8C5) is recommended for detection of Ly-6G of mouse origin by Western Blotting (non-reducing) (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 µg per 1 x 10⁶ cells); may cross-react with Ly-6C.

Suitable for use as control antibody for Ly-6G siRNA (m): sc-106187, Ly-6G shRNA Plasmid (m): sc-106187-SH and Ly-6G shRNA (m) Lentiviral Particles: sc-106187-V.

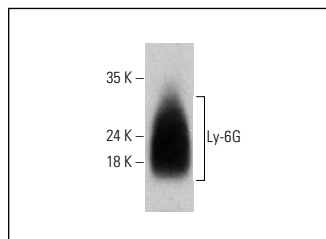
Molecular Weight of Ly-6G: 16 kDa.

Positive Controls: mouse PBL tissue extract.

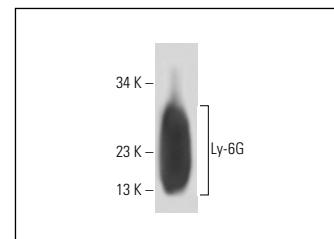
STORAGE

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

DATA



Ly-6G (RB6-8C5) HRP: sc-53515 HRP. Direct western blot analysis of Ly-6G expression in mouse PBL tissue extract under non-reducing conditions.



Ly-6G (RB6-8C5): sc-53515. Western blot analysis of Ly-6G expression in mouse PBL tissue extract under non-reducing conditions.

SELECT PRODUCT CITATIONS

- Ishihara, K., et al. 2004. The point mutation of tyrosine 759 of the IL-6 family cytokine receptor gp130 synergizes with HTLV-1 pX in promoting rheumatoid arthritis-like arthritis. *Int. Immunol.* 16: 455-465.
- Konsavage, W.M., Jr., et al. 2013. The Myc 3' Wnt responsive element regulates neutrophil recruitment after acute colonic injury in mice. *Dig. Dis. Sci.* 58: 2858-2867.
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- Yang, Y.Q., et al. 2018. Triptrolide alleviates lipopolysaccharide-induced liver injury by Nrf2 and NFκB signaling pathways. *Front. Pharmacol.* 9: 999.
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- Jiao, Z., et al. 2021. Time-course transcriptome analysis of lungs from mice exposed to ricin by intratracheal inoculation. *Toxicol. Lett.* 337: 57-67.
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- Xu, J.Y., et al. 2022. Interleukin-5-induced eosinophil population improves cardiac function after myocardial infarction. *Cardiovasc. Res.* 118: 2165-2178.

RESEARCH USE

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