

Ly-6C (G-3): sc-271811

BACKGROUND

The gene encoding the mouse alloantigen, Ly-6C, maps to chromosome 15 and encodes a 131 amino acid protein that 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-6C is predominantly expressed on murine peripheral CD8 T cells. Ly-6C is involved in endothelial adhesion, the killing of target cells by CTLs, inducing TCR-mediated activation of IL-2 and IFN- γ production in CD8 T cells and the homing of CD8 T cells. In addition, Ly-6C may act as a signaling molecule of LFA-1 activation.

CHROMOSOMAL LOCATION

Genetic locus: Ly6c1 (mouse) mapping to 15 D3.

SOURCE

Ly-6C (G-3) is a mouse monoclonal antibody raised against amino acids 51-100 mapping within an internal region of Ly-6C of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ly-6C (G-3) is available conjugated to agarose (sc-271811 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271811 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271811 PE), fluorescein (sc-271811 FITC), Alexa Fluor[®] 488 (sc-271811 AF488), Alexa Fluor[®] 546 (sc-271811 AF546), Alexa Fluor[®] 594 (sc-271811 AF594) or Alexa Fluor[®] 647 (sc-271811 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271811 AF680) or Alexa Fluor[®] 790 (sc-271811 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ly-6C (G-3) is recommended for detection of Ly-6C of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ly-6C siRNA (m): sc-42943, Ly-6C shRNA Plasmid (m): sc-42943-SH and Ly-6C shRNA (m) Lentiviral Particles: sc-42943-V.

Molecular Weight of Ly-6C: 14-16 kDa.

Positive Controls: BW5147 cell lysate: sc-3800, BYDP whole cell lysate: sc-364368 or Jurkat whole cell lysate: sc-2204.

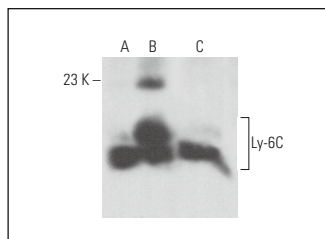
STORAGE

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

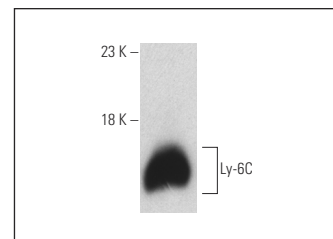
RESEARCH USE

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

DATA



Ly-6C (G-3): sc-271811. Western blot analysis of Ly-6C expression in BYDP (A) and Jurkat (B) whole cell lysates and rat thymus tissue extract (C).



Ly-6C (G-3): sc-271811. Western blot analysis of Ly-6C expression in BW5147 whole cell lysate. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.

SELECT PRODUCT CITATIONS

- Chen, X.W., et al. 2017. Recruitment of CD11b⁺Ly6C⁺ monocytes in non-small cell lung cancer xenografts challenged by anti-VEGF antibody. *Oncol. Lett.* 14: 615-622.
- Dong, Y., et al. 2018. Differential fates of tissue macrophages in the cochlea during postnatal development. *Hear. Res.* 365: 110-126.
- Lin, Z.H., et al. 2019. Eliciting α 7-nAChR exerts cardioprotective effects on ischemic cardiomyopathy via activation of AMPK signalling. *J. Cell. Mol. Med.* 23: 4746-4758.
- Fattori, V., et al. 2022. Maresin 2 is an analgesic specialized pro-resolution lipid mediator in mice by inhibiting neutrophil and monocyte recruitment, nociceptor neuron TRPV1 and TRPA1 activation, and CGRP release. *Neuropharmacology* 216: 109189.
- Huang, Z.Q., et al. 2023. Costunolide alleviates atherosclerosis in high-fat diet-fed ApoE^{-/-} mice through covalently binding to IKK β and inhibiting NF κ B-mediated inflammation. *Acta Pharmacol. Sin.* 44: 58-70.
- Huang, Z., et al. 2023. Macrophage DCLK1 promotes atherosclerosis via binding to IKK β and inducing inflammatory responses. *EMBO Mol. Med.* 15: e17198.
- Zhu, X., et al. 2023. CCL2-mediated inflammatory pathogenesis underlies high myopia-related anxiety. *Cell Discov.* 9: 94.
- Li, W., et al. 2023. Tetrandrine alleviates atherosclerosis via inhibition of STING-TBK1 pathway and inflammation in macrophages. *Int. Immunopharmacol.* 119: 110139.
- Li, X., et al. 2024. Immune cells promote BDNF expression by infiltrated macrophages via interleukin 4 in the cerebral ischemia of male rats. *J. Neurosci. Res.* 102: e25379.

PROTOCOLS

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

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