

Ly-6C (Y-18): sc-23079

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.

REFERENCES

1. Philbrick, W.M., et al. 1990. A recombination event in the 5' flanking region of the Ly-6C gene correlates with impaired expression in the NOD, NZB and ST strains of mice. *EMBO J.* 9: 2485-2492.
2. Classon, B.J. and Coverdale, L. 1994. Mouse stem cell antigen Sca-2 is a member of the Ly-6 family of cell surface proteins. *Proc. Natl. Acad. Sci. USA* 91: 5296-5300.
3. Gumley, T.P., et al. 1995. Tissue expression, structure and function of the murine Ly-6 family of molecules. *Immunol. Cell Biol.* 73: 277-296.
4. Takikawa, O., et al. 1996. Multiple expression of Ly-6C and accumulation of a Ly-6C pre-mRNA in activated macrophages involved in rejection of an allografted tumor. *Biochem. Biophys. Res. Commun.* 226: 247-253.
5. Classon, B.J. and Boyd, R.L. 1998. Thymic-shared antigen-1 (TSA-1). A lymphostromal cell membrane Ly-6 superfamily molecule with a putative role in cellular adhesion. *Dev. Immunol.* 6: 149-156.
6. Ding, L. and Shevach, E.M. 2001. Inhibition of the function of the Fc γ RIIB by a monoclonal antibody to thymic shared antigen-1, a Ly-6 family antigen. *Immunology* 104: 28-36.

CHROMOSOMAL LOCATION

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

SOURCE

Ly-6C (Y-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ly-6C of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23079 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Ly-6C (Y-18) is recommended for detection of Ly-6C of mouse origin by Western Blotting (starting dilution 1:200, 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.

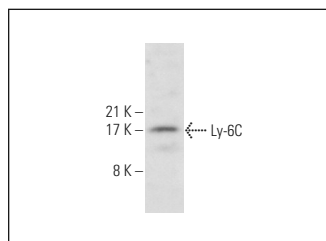
Molecular Weight of Ly-6C: 14-16 kDa.

Positive Controls: BW.5147 cell lysate: sc-3800, TK-1 whole cell lysate: sc-364798 or mouse lymph node tissue extract: sc-364243.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ly-6C (Y-18): sc-23079. Western blot analysis of Ly-6C expression in TK-1 whole cell lysate.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **Ly-6C (G-3): sc-271811** or **Ly-6C (ER-MP20): sc-52650**, our highly recommended monoclonal alternatives to Ly-6C (Y-18).