Anti-Mouse Ly-6G Antibody, Clone 1A8

Antibodies

Rat monoclonal IgG2a antibody against mouse Ly-6G, unconjugated

Catalog #60031 | 500 µg | 0.5 mg/mL

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Product Description

The 1A8 antibody reacts with Ly-6G, a 21 - 25 kDa GPI-anchored protein, which together with the structurally related Ly-6C protein comprises the granulocyte receptor-1 antigen (Gr-1). Gr-1 is expressed on monocytes, neutrophils and subsets of macrophages, plasmacytoid dendritic cells and T cells. Monocytes in the bone marrow transiently express Gr-1 during development and the expression level is strongly correlated with granulocyte differentiation and maturation. In the periphery, Gr-1 is found predominantly on neutrophils and is a useful marker for these cells. The 1A8 antibody binds specifically to Ly-6G, whereas another commonly used antibody, clone RB6-8C5, binds to both Ly-6G and Ly-6C. It has been reported that the 1A8 antibody detects Ly-6G-expressing granulocytes in peripheral blood, whereas the RB6-8C5 antibody also binds to Ly-6C-expressing lymphocytes, monocytes and dendritic cells.

Target Antigen Name:	Ly-6G
Alternative Names:	Gr-1, GR1, Ly6G
Gene ID:	546644
Species Reactivity:	Mouse
Host Species:	Rat (LEW)
Clonality:	Monoclonal
Clone:	1A8
Isotype:	IgG2a, kappa
Immunogen:	Mouse Ly-6G-transfected EL-4J cell line
Conjugate:	Unconjugated

Applications

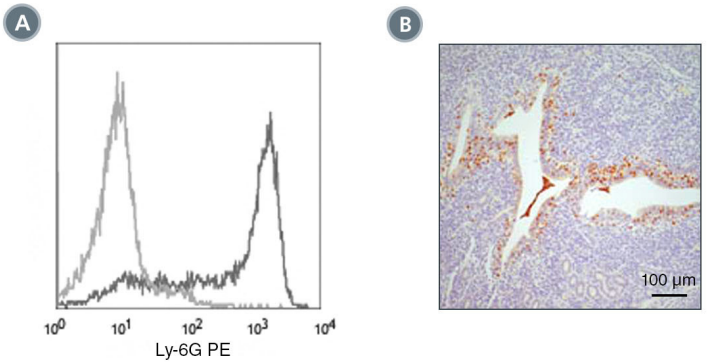
Verified:	FC
Reported:	FA, FC, IP, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Neutrophil Enrichment Kit (Catalog #19762).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10e6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with Anti-Mouse Ly-6G Antibody, Clone 1A8, followed by anti-rat IgG, PE (black line histogram) or a rat IgG2a, kappa isotype control antibody followed by anti-rat IgG, PE (grey line histogram). Myeloid cells were gated for analysis.
(B) Immunohistochemical analysis of formalin-fixed, paraffin-embedded mouse uterine tissue labeled with Anti-Mouse Ly-6G Antibody, Clone 1A8, followed by anti-mouse, HRP. DAB substrate was used for visualization.

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Mouse Ly-6G Antibody, Clone 1A8	60031	500 µg
Anti-Mouse Ly-6G Antibody, Clone 1A8, PE	60031PE	200 µg
Anti-Mouse Ly-6G Antibody, Clone 1A8, PE	60031PE.1	50 µg
Anti-Mouse Ly-6G Antibody, Clone 1A8, FITC	60031FI.1	50 µg
Anti-Mouse Ly-6G Antibody, Clone 1A8, FITC	60031FI	500 µg

References

1. Hestdal K, et al. Characterization and regulation of RB6-8C5 antigen expression on murine bone marrow cells. J Immunol 147(1): 22-28, 1991
2. Fleming TJ, et al. Selective expression of Ly-6G on myeloid lineage cells in mouse bone marrow. RB6-8C5 mAb to granulocyte-differentiation antigen (Gr-1) detects members of the Ly-6 family. J Immunol 151(5):2399-408, 1993 (IP)
3. Fleming TJ, Malek TR. Multiple glycosylphosphatidylinositol-anchored Ly-6 molecules and transmembrane Ly-6E mediate inhibition of IL-2 production. J Immunol 153(5): 1955-62, 1994 (FA)
4. Dietlin TA, et al. Mycobacteria-induced Gr-1+ subsets from distinct myeloid lineages have opposite effects on T cell expansion. J Leukocyte Biol 81(5): 1205-12, 2007 (FC)
5. Daley JM, et al. Use of Ly6G-specific monoclonal antibody to deplete neutrophils in mice. J. Leukocyte Biol 83(1): 64-70, 2008 (FC, Depletion)
6. Van Leeuwen, et al. Accumulation of myeloperoxidase-positive neutrophils in atherosclerotic lesions in LDLR-/- mice. Arterioscler Thromb Vasc Biol 28(1): 84-89, 2008 (IHC)
7. Guiducci C, et al. Autoimmune skin inflammation is dependent on plasmacytoid dendritic cell activation by nucleic acids via TLR7 and TLR9. J Exp Med 207(13): 2931-42, 2010
8. Tadagavadi RK, Reeves WB. Endogenous IL-10 attenuates cisplatin nephrotoxicity: role of dendritic cells. J Immunol 185(8): 4904-11, 2010
9. Fujita M, et al. COX-2 blockade suppresses gliomagenesis by inhibiting myeloid-derived suppressor cells. Cancer Res 71(7): 2664-74, 2011
10. Rose S, et al. A novel Ly6C/Ly6G-based strategy to analyze the mouse splenic myeloid compartment. Cytometry A 81(4):343-50, 2012 (FC)