Anti-Mouse CD150 Antibody, Clone TC15-12F12.2, Biotin

Antibodies

Rat monoclonal IgG2a antibody against mouse CD150 (SLAM), biotin-conjugated

Catalog	#60036BT	100 µg	0.5 mg/mL
	#60036BT.1	25 µg	0.5 mg/mL

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Product Description

The TC15-12F12.2 antibody reacts with CD150 (signaling lymphocyte activation molecule or SLAM), an ~75 kDa type I transmembrane glycoprotein that plays multiple roles in the immune response by serving as a cell adhesion molecule and/or coreceptor. It is differentially expressed by T cells, immature thymocytes, B cells, dendritic cells, macrophages, and endothelial cells. The expression pattern differs according to cell type and activation status. Expression is rapidly induced upon activation of T cells, B cells, and dendritic cells, with synthesis by T cells being maintained on Th1 but not Th2 clones. CD150-mediated co-stimulation of TCR-activated T cells enhances the production of IFN-γ by Th1 cells, a response that can be augmented by binding of the TC15-12F12.2 antibody. CD150 is thought to mediate signal transduction by associating with the intracellular protein tyrosine phosphatase, SHP-2. CD150 also has functions in hematopoietic cell development and is a useful marker for detection of multipotent hematopoietic stem cells (in concert with other markers such as CD48 and CD41). CD150 is not expressed on non-multipotent hematopoietic progenitor cells.

Target Antigen Name:	CD150 (SLAM)
Alternative Names:	IPO-3, Signaling lymphocyte activation molecule
Gene ID:	27218
Species Reactivity:	Mouse
Host Species:	Rat (LEW)
Clonality:	Monoclonal
Clone:	TC15-12F12.2
Isotype:	IgG2a, lambda
Immunogen:	Mouse SLAM-human IgG1 fusion protein
Conjugate:	Biotin

Applications

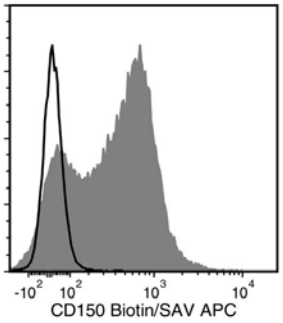
Verified:	FC
Reported:	FC, IF, IHC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.25 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD150 Antibody, Clone TC15-12F12.2, Biotin, followed by streptavidin (SAV) APC (filled histogram), or a biotinylated rat IgG2a isotype control antibody, followed by SAV APC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Morita Y et al. (2010) Heterogeneity and hierarchy within the most primitive hematopoietic stem cell compartment. J Exp Med 207(6): 1173–82.
2. Song J et al. (2010) An in vivo model to study and manipulate the hematopoietic stem cell niche. Blood 115(13): 2592–600.
3. Yusuf I et al. (2010) Germinal center T follicular helper cell IL-4 production is dependent on signaling lymphocytic activation molecule receptor (CD150). J Immunol 185(1): 190–202. (FC)
4. Fraser ST et al. (2007) Maturation and enucleation of primitive erythroblasts during mouse embryogenesis is accompanied by changes in cell-surface antigen expression. Blood 109(1): 343–52.
5. Jordan MA et al. (2007) Slamf1, the NKT cell control gene Nkt1. J Immunol 178(3): 1618–27. (FA, FC)
6. Sugiyama T et al. (2007) Conserved markers of fetal pancreatic epithelium permit prospective isolation of islet progenitor cells by FACS. Proc Natl Acad Sci USA 104(1): 175–80.
7. Ema H et al. (2006) Adult mouse hematopoietic stem cells: purification and single-cell assays. Nat Protoc 1(6): 2979–87.
8. Umemoto T et al. (2006) Expression of Integrin beta3 is correlated to the properties of quiescent hemopoietic stem cells possessing the side population phenotype. J Immunol 177(11): 7733–9. (FC)
9. Forsberg EC et al. (2005) Differential expression of novel potential regulators in hematopoietic stem cells. PLoS Genet 1(3): e28. (FC)
10. Castro AG et al. (1999) Molecular and functional characterization of mouse signaling lymphocytic activation molecule (SLAM): differential expression and responsiveness in Th1 and Th2 cells. J Immunol 163(11): 5860–70. (FA, FC, IP)
11. Punnonen J et al. (1997) Soluble and membrane-bound forms of signaling lymphocytic activation molecule (SLAM) induce proliferation and Ig synthesis by activated human B lymphocytes. J Exp Med 185(6): 993–1004.
12. Cocks BG et al. (1995) A novel receptor involved in T-cell activation. Nature 376(6537): 260–3.