SONY

Product Data Sheet

Brilliant Violet 510™ anti-mouse CD150 (SLAM)

Catalog # / Size: 1179645 / 125 µl

Clone: TC15-12F12.2

Isotype: Rat IgG2a, λ

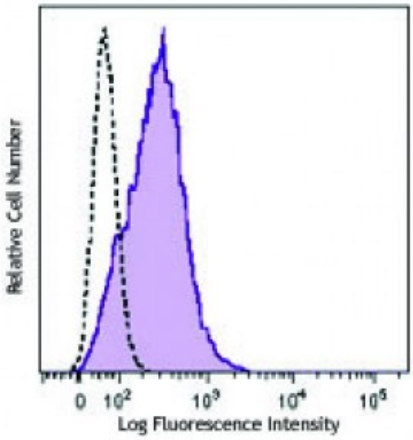
Immunogen: Mouse SLAM-human IgG1 fusion protein

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: Lot-specific



C57BL/6 mouse splenocytes were stained with SLAM (clone TC15-12F12.2) Brilliant Violet 510™ (filled histogram) or rat IgG2a, κ Brilliant Violet 510™ isotype control (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.

Application Notes: The TC15-12F12.2 antibody has been reported to enhance the production of IFN-γ by Th1 cells stimulated through TCR. Additional reported applications (for the relevant formats) include: immunoprecipitaion1, enhancing IFN-γ production by Th1 cells when stimulated with CD31, and inhibiting CD3 induced T cell proliferation[6]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 115906).

Application References:

1. Castro AG, *et al.* 1999. *J. Immunol.* 163:5860. (FC, Costim, IP)
2. Forsberg EC, *et al.* 2005. *PLoS Genet.* 1:e28. (FC)
3. Terrazas LI, *et al.* 2005. *Int. J. Parasitol.* 35:1349. (FC)

4. Cannons JL, *et al.* 2006. *J. Exp. Med.* 203:1551. (FC)
5. Umemoto T, *et al.* 2006. *J. Immunol.* 177:7733. (FC)
6. Jordan MA, *et al.* 2007. *J. Immunol.* 178:1618. (FC, Block) PubMed
7. Jung Y, *et al.* 2007. *Blood* 110:82. PubMed
8. Pimanda JE, *et al.* 2007. *Proc. Natl. Acad. Sci. USA* 104:840.
9. Sugiyama T, *et al.* 2007. *Proc. Natl. Acad. Sci. USA* 104:175.
10. Kim I, *et al.* 2006. *Blood* 108:737. PubMed
11. Ema H, *et al.* 2006. *Nat Protoc.* 1:2979. PubMed
12. Fraser ST, *et al.* 2007. *Blood* 109:4616. PubMed
13. Jung Y, *et al.* 2008. *Stem Cells.* 26:2042. Pubmed
14. Song J, *et al.* 2010. *Blood* 115:2592. PubMed
15. Cridland SO, *et al.* 2009. *Blood Cell. Mol. Dis.* 43:149. (FC) PubMed
16. Morita Y, *et al.* 2010. *J. Exp Med.* 207:1173. PubMed

Description: CD150 is a 75-95 kD member of the immunoglobulin superfamily, also known as SLAM (signaling lymphocyte activation molecule) or IPO-3. CD150, a single chain type I transmembrane molecule, is expressed on thymocytes, T cell subsets, B cells, dendritic cells, and endothelial cells. The expression is upregulated upon activation. CD150 expression has been shown to be maintained on Th1 but not Th2 clones. T regulatory cells express a relatively high level of CD150. Antibodies against CD150 have been shown to augment IFN-γ production by Th1 cells, especially when co-stimulated through the TCR. CD150 associates with the src homology 2-domain-containing protein tyrosine phosphatase SHP-2, and this association is thought to be involved in signal transduction. In combination with CD48, CD150 is a useful marker for hematopoietic stem cell studies.

Antigen References:

1. Cocks BG, *et al.* 1995. *Nature* 376:260.
2. Punnonen J, *et al.* 1997. *J. Exp. Med.* 185:993.
3. Sidorenko SP, *et al.* 1993. *J. Immunol.* 151:4614.