SONY

Product Data Sheet

Brilliant Violet 510™ anti-mouse F4/80

Catalog # / Size: 1215675 / 50 µg

Clone: BM8

Isotype: Rat IgG2a, κ

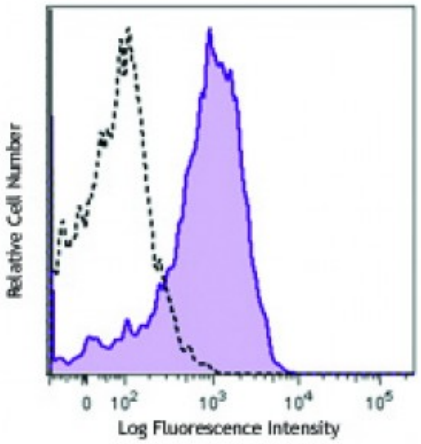
Immunogen: Murine macrophages

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: 0.2



Thioglycolate-elicited Balb/c mouse peritoneal macrophages were stained with F4/80 (clone BM8) 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 ≤0.5 microg per million cells in 100 microL volume. 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: Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections[1,2] and formalin-fixed paraffin-embedded sections[6,7], and Western blotting.

Application References:

1. Schaller E, *et al.* 2002. *Mol. Cell. Biol.* 22:8035. (IHC)
2. Stevceva L, *et al.* 2001. *BMC Clin Pathol.* 1:3. (IHC)
3. Kobayashi M, *et al.*2008. *J. Leukoc. Biol.* 83:1354. PubMed
4. Poeckel D, *et al.* 2009. *J. Biol Chem.* 284:21077. PubMed
5. Glass AM, *et al.* 2013. *J. Immunol.* 190:4830. PubMed

6. Koehm S, et al. 2007. J. Allergy Clin. Immunol. 120:570. (IHC)
7. Rankin AL, et al. 2010. J. Immunol. 184:1526. (IHC)
8. Sasi SP, *et al.* 2014. *J Biol Chem.* 289:14178. PubMed
9. Thakus VS, *et al.* 2014. *Toxicol Lett.* 230:322. PubMed

Description: F4/80 is a 160 kD glycoprotein. It is characterized as a member of the epidermal growth factor (EGF)-transmembrane 7 (TM7) family. F4/80, also known as EMR1 or Ly71, has been widely used as a murine macrophage marker, which is expressed on the majority of tissue macrophages including peritoneal macrophages, macrophages in lung, gut, thymus and red pulp of spleen (but not on the macrophages located in T cell areas of the spleen, lymph node and Peyer's patch), Kuffer cells, Langerhans cells, and bone marrow stromal cells. F4/80 has also been shown on a subset of dendritic cells. The biological ligand of F4/80 has not been identified, but it has been reported that F4/80 is required for induction of $CD8^+$ T cells-mediated peripheral tolerance.

Antigen References:

1. Austy JM and Gordon S. 1981. *Eur. J. Immunol.* 11:805.
2. Hume DA, *et al.* 1983. *J. Exp. Med.* 158:1522.
3. Ruedl C, *et al.* 1996. *Eur. J. Immunol.* 26:1801.
4. McKnight AJ, *et al.* 1996