Product Data Sheet

KIRAVIA Blue 520™ anti-mouse F4/80

Catalog # / Size:	1215805 / 25 µg 1215810 / 100 µg
Clone:	BM8
Isotype:	Rat IgG2a, κ
Immunogen:	Murine macrophages
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with KIRAVIA Blue 520™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Concentration:	0.2 mg/mL

Thioglycolate-elicited Balb/c mouse peritoneal macrophages were stained with CD11b APC and F4/80 (clone BM8) KIRAVIA Blue 520™ (left) or rat IgG2a, κ KIRAVIA Blue 520™ isotype control (right).

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 ≤ 1.0 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * KIRAVIA Blue 520™ has an excitation maximum of 495 nm, and a maximum emission of 520 nm.
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
10. Watson NB, *et al.* 2015. *J Immunol.* 194:2796. PubMed
11. Hirakawa H, *et al.* 2015. *PLoS One.* 10:119360. PubMed

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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. *J. Biol. Chem.* 271:486.
5. Lin HH, *et al.* 2005. *J. Exp. Med.* 201:1615.