Antibodies

Anti-Mouse F4/80 Antibody, Clone BM8, Alexa Fluor® 488

Rat monoclonal IgG2a antibody against mouse F4/80, Alexa Fluor® 488-conjugated

Catalog	#60027AD	100 µg	0.5 mg/mL
	#60027AD.1	25 µg	0.5 mg/mL

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

The BM8 antibody reacts with the F4/80 antigen, also termed Ly-71 in mouse, an ~160 kDa transmembrane glycoprotein belonging to the EGF-TM7 family of G-protein-coupled receptors. F4/80 is considered a marker of choice for the identification of mature tissue macrophages, being broadly but variably expressed by this cell type in the liver (Kupffer cells), skin (Langerhans cells), bone marrow stroma, pancreas, thymus, spleen (red pulp), lung, and other tissues. It is also expressed by circulating monocytes, eosinophils and a subset of dendritic cells. F4/80 expression levels increase following activation of macrophages. F4/80 is reportedly the only macrophage marker suitable for distinguishing destructive from non-destructive inflammatory processes in the pancreas. The protein is thought to play a role in the generation of CD8+ regulatory T cells involved in immune tolerance.

Target Antigen Name:	F4/80
Alternative Names:	Ly71
Gene ID:	13733
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	BM8
Isotype:	IgG2a, kappa
Immunogen:	Murine (BALB/c) macrophages obtained from 14-day-old bone marrow cell cultures
Conjugate:	Alexa Fluor® 488

Applications

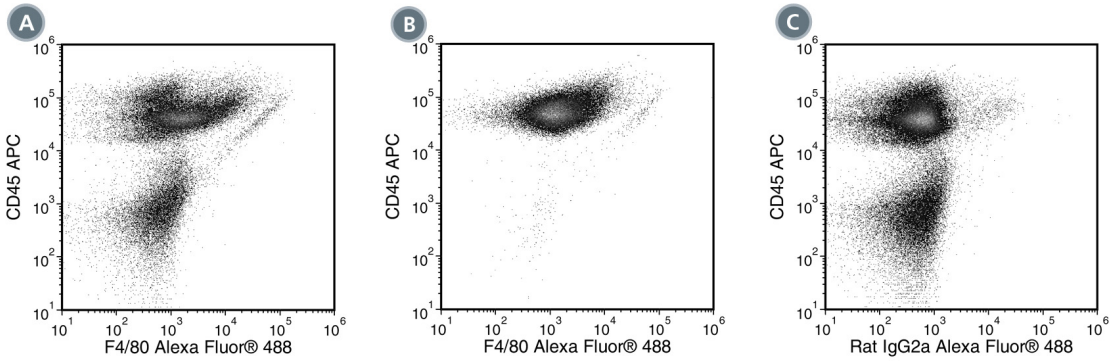
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Monocyte Isolation Kit (Catalog #19861) and EasySep™ Mouse CD11b Positive Selection Kit (Catalog #18770).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; 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 Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 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 F4/80 Antibody, Clone BM8, Alexa Fluor® 488 and anti-mouse CD45 APC.
(B) Flow cytometry analysis of C57BL/6 mouse bone marrow cells processed with the EasySep™ Mouse CD11b Positive Selection Kit and labeled with Anti-Mouse F4/80 Antibody, Clone BM8, Alexa Fluor® 488.
(C) Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with a rat IgG2a, kappa Alexa Fluor® 488 isotype control antibody and anti-mouse CD45 APC.

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. Balamurugan K et al. (2013) FBXW7α attenuates inflammatory signalling by downregulating C/EBPδ and its target gene Tlr4. Nat Commun 4: 1662. (FC)
2. Majumder M et al. (2013) A practical and sensitive method of quantitating lymphangiogenesis in vivo. Lab Invest 93(7): 779–91. (IF, IHC)
3. Koenen TB et al. (2011) The inflammasome and caspase-1 activation: a new mechanism underlying increased inflammatory activity in human visceral adipose tissue. Endocrinology 152(10): 3769–78. (FC)
4. Meyer zu Hörste M et al. (2011) A novel mechanism involved in the pathogenesis of Graves ophthalmopathy (GO): clathrin is a possible targeting molecule for inhibiting local immune response in the orbit. J Clin Endocrinol Metab 96(11): E1727–36. (FC)
5. Poeckel D et al. (2009) Dual 12/15- and 5-lipoxygenase deficiency in macrophages alters arachidonic acid metabolism and attenuates peritonitis and atherosclerosis in ApoE knock-out mice. J Biol Chem 284(31): 21077–89. (FC)
6. Lin H-H et al. (2005) The macrophage F4/80 receptor is required for the induction of antigen-specific efferent regulatory T cells in peripheral tolerance. J Exp Med 201(10): 1615–25. (IHC)
7. Schaller E et al. (2002) Inactivation of the F4/80 glycoprotein in the mouse germ line. Mol Cell Biol 22(22): 8035–43. (ICC, IHC)
8. Mackler AM et al. (2000) Distribution and activation of uterine mononuclear phagocytes in peripartum endometrium and myometrium of the mouse. Biol Reprod 62(5): 1193–200. (IHC)
9. Murayama T et al. (1999) Intraperitoneal administration of anti-c-fms monoclonal antibody prevents initial events of atherogenesis but does not reduce the size of advanced lesions in apolipoprotein E-deficient mice. Circulation 99(13): 1740–6. (IHC)
10. Haidl ID & Jefferies WA. (1996) The macrophage cell surface glycoprotein F4/80 is a highly glycosylated proteoglycan. Eur J Immunol 26(5): 1139–46.
11. Leenen PJ et al. (1994) Markers of mouse macrophage development detected by monoclonal antibodies. J Immunol Methods 174(1-2): 5–19. (FC)