Datasheet: MCA1322A488T

Description:	RAT ANTI MOUSE CD204:Alexa Fluor® 488
Specificity:	CD204
Other names:	SCAVENGER RECEPTOR TYPE I/II
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	2F8
Isotype:	IgG2b
Quantity:	25 TESTS/0.25ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/5

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Mouse

Species Cross Reactivity

Reacts with: Pig, Channel catfish
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Purified IgG conjugated to Alexa Fluor® 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen

Raw 264 cell line.

External Database Links	**UniProt:** P30204 Related reagents **Entrez Gene:** 20288 Msr1 Related reagents
Synonyms	Scvr
Fusion Partners	Spleen cells from immunised AO rats were fused with cells of the Y3 rat myeloma cell line.
Specificity	**Rat anti Mouse CD204 antibody, clone 2F8** recognizes the murine scavenger receptor class A (SRA), type I and II, also known as CD204. CD204 is expressed by tissue macrophages and functions both as an endocytic receptor for lipoproteins and as an adhesion receptor for macrophages binding to ligand rich tissues e.g. atherosclerotic lesions. Clone 2F8 inhibits the uptake of acetylated low-density lipoproteins and also inhibits divalent cation independent adhesion (Fraser *et al.* 1993). Rat anti Mouse CD204 antibody, clone 2F8 recognizes an epitope within SRA that is polymorphic in the SRA from C57BL/6 mice. Clone 2F8 is therefore unsuitable for use with the C57BL/6 mouse strain (Daugherty *et al.* 2000).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).
References	1. Fraser, I. *et al.* (1993) Divalent cation-independent macrophage adhesion inhibited by monoclonal antibody to murine scavenger receptor. Nature. 364 (6435): 343-6. 2. de Villiers, W.J. *et al.* (1994) Macrophage-colony-stimulating factor selectively enhances macrophage scavenger receptor expression and function. J Exp Med. 180 (2): 705-9. 3. Hughes, D.A. *et al.* (1995) Murine macrophage scavenger receptor: in vivo expression and function as receptor for macrophage adhesion in lymphoid and non-lymphoid organs. Eur J Immunol. 25 (2): 466-73. 4. Gordon, S. (1995) The macrophage. Bioessays. 17 (11): 977-86. 5. Hughes, D.A. *et al.* (1994) Murine M phi scavenger receptor: adhesion function and expression. Immunol Lett. 43 (1-2): 7-14. 6. Aid, S. *et al.* (2008) Neuroinflammatory response to lipopolysaccharide is exacerbated in mice genetically deficient in cyclooxygenase-2. J Neuroinflammation. 5: 17. 7. Daugherty, A. *et al.* (2000) Polymorphism of class A scavenger receptors in C57BL/6 mice. J Lipid Res. 41 (10): 1568-77. 8. Moldenhauer, L.M. *et al.* (2010) GM-CSF is an essential regulator of T cell activation competence in uterine dendritic cells during early pregnancy in mice. J Immunol. 185 (11): 7085-96. 9. Luechtenborg, B. *et al.* (2008) Function of scavenger receptor class A type I/II is not important for smooth muscle foam cell formation. Eur J Cell Biol. 87: 91-9. 10. Sever-Chroneos, Z. *et al.* (2011) Surfactant Protein A (SP-A)-mediated Clearance of *Staphylococcus aureus* Involves Binding of SP-A to the Staphylococcal Adhesin Eap and the Macrophage Receptors SP-A Receptor 210 and Scavenger Receptor Class A. J Biol Chem. 286: 4854-70. 11. Yang, C.N. *et al.* (2011) Mechanism mediating oligomeric Aβ clearance by naïve primary microglia. Neurobiol Dis. 42 (3): 221-30. 12. Hald, A. *et al.* (2011) MMP9 is protective against lethal inflammatory mass lesions in the mouse colon. Dis Model Mech. 4: 212-27.

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Storage

Store at +4^{o}C or at -20^{o}C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Acknowledgements

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