

## Datasheet: BUF041A

**BATCH NUMBER 166173**

<b>Description:</b>	MOUSE SEROBLOCK FcR
<b>Name:</b>	MOUSE SEROBLOCK FCR
<b>Other names:</b>	CD16/CD32
<b>Format:</b>	Reagent
<b>Product Type:</b>	Accessory Reagent
<b>Clone:</b>	FCR4G8
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.1 mg

## 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	PU5 1.8 IOE7 Balb/c mouse cell line.

**Product Information** **Mouse SeroBlock FcR** is a rat antibody that recognizes mouse CD16 and CD32, cell surface proteins also known as FcRγIII and FcRγII, respectively. The function of these proteins is to bind IgG molecules via their Fc regions as part of the adaptive immune response. CD16 and/or CD32 are expressed by a wide variety of cells, including monocytes, macrophages, B lymphocytes, granulocytes, NK cells, dendritic cells and some activated T lymphocytes. The expression of CD16/CD32 antigens can lead to non-specific binding of test monoclonal antibodies in staining procedures, resulting in “high background” staining on a wide range of cells. This non-specific binding may be blocked by pre-incubation of target cells with BUF041A, resulting in clearer staining. For direct analysis of CD16/32 expression this antibody is also available conjugated directly to FITC ([MCA2305F](#) ), AlexaFluor488 ([MCA2305A488](#)), AlexaFluor647 ([MCA2305A647](#) ) and RPE ([MCA2305PE](#) ).

**Instructions For Use** In order to reduce Fc-receptor mediated binding of test antibodies the following procedure is recommended:-

- 1) Incubate the cell suspension (1 x 10<sup>6</sup> cells in 100ul) with 1ug of BUF041A (1ul of undiluted reagent, or 10ul of a 1/10 dilution) for 5-10 minutes.
- 2) Add test antibody according to manufacturers instructions – Do not wash BUF041A off the cells. BUF041A is suitable for use in conjunction with test antibodies from any manufacturer or with in-house antibodies.\*
- 3) Proceed with staining as usual.

\* Care is needed in the design of experiments utilizing unconjugated anti-mouse antibodies, to ensure that the secondary antibody being used does not cross-react with SeroBlock FcR. Bio-Rad supply a range of isotype specific anti-mouse immunoglobulin antibodies that may be useful for this purpose.

## References

1. Ivanovska, N.D. *et al.* (2008) Properdin deficiency in murine models of nonseptic shock. [J Immunol. 180 \(10\): 6962-9.](#)
2. Chen, H-F *et al.* (2009) A reduced oxygen tension (5%) is not beneficial for maintaining human embryonic stem cells in the undifferentiated state with short splitting intervals. [Human Reproduction. 24: 71-80.](#)
3. Birjandi, S.Z. *et al.* (2011) Alterations in marginal zone macrophages and marginal zone B cells in old mice. [J Immunol. 186: 3441-51.](#)
4. Cousins, F.L. *et al.* (2016) Evidence for a dynamic role for mononuclear phagocytes during endometrial repair and remodelling. [Sci Rep. 6: 36748.](#)
5. Chiang, M.K. *et al.* (2021) Two ST11 *Klebsiella pneumoniae* strains exacerbate colorectal tumorigenesis in a colitis-associated mouse model. [Gut Microbes. 13 \(1\): 1980348.](#)
6. Brulin, B. *et al.* (2021) Evaluation of the Chemotherapy Drug Response Using Organotypic Cultures of Osteosarcoma Tumours from Mice Models and Canine Patients. [Cancers \(Basel\). 13 \(19\): 4890.](#)
7. Bonet, A. *et al.* (2021) Decreased endostatin in db/db retinas is associated with optic disc intravitreal vascularization. [Exp Eye Res. 212: 108801.](#)

8. Satofuka, H. *et al.* (2022) Efficient human-like antibody repertoire and hybridoma production in trans-chromosomal mice carrying megabase-sized human immunoglobulin loci. [Nat Commun. 13 \(1\): 1841.](#)
9. Dorfman, M.D. *et al.* (2023) Central androgen action reverses hypothalamic astrogliosis and atherogenic risk factors induced by orchiectomy and high-fat diet feeding in male mice. [Am J Physiol Endocrinol Metab. 324 \(5\): E461-E475.](#)
10. Fernandez, J.L. *et al.* (2023) A Comparative Analysis of Orthotopic and Subcutaneous Pancreatic Tumour Models: Tumour Microenvironment and Drug Delivery. [Cancers \(Basel\). 15 \(22\): 5415.](#)
11. Roy, K. *et al.* (2023) Endotoxin Tolerance Creates Favourable Conditions for Cancer Development. [Cancers \(Basel\). 15 \(20\): 5113.](#)

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<b>Storage</b>	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.
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Avoid repeated freezing and thawing as this may denature the product. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/BUF041A">https://www.bio-rad-antibodies.com/SDS/BUF041A</a> 10040
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<b>Regulatory</b>	For research purposes only
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M387742:210714'

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