Datasheet: BUF041B

BATCH NUMBER 162075

Description:	MOUSE SEROBLOCK FcR
Name:	MOUSE SEROBLOCK FCR
Other names:	CD16/CD32
Format:	Reagent
Product Type:	Accessory Reagent
Clone:	FCR4G8
Isotype:	IgG2b
Quantity:	0.5 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.

	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.

Target Species	Mouse
Product Form	Purified IgG - liquid
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 (NaN_3)
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	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 10^6 cells in 100ul) with 1ug of BUF041B (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 BUF041B off the cells. BUF041B 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

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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-chromosomic 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.

Storage	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. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/BUF041B 10040
Regulatory	For research purposes only

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