Datasheet: MCA2483FA

Description:	MOUSE ANTI BrdU:FITC
Specificity:	BrdU
Other names:	5-BROMODEOXYURIDINE
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	Bu20a
Isotype:	IgG1
Quantity:	50 µg

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 (1)	▪			Neat - 1/10

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.
(1) Flow Cytometry protocols can be found at:
www.bio-rad-antibodies.com/brdu-clone-bu20a-flow-cytometry-protocol
www.bio-rad-antibodies.com/brdu-staining-cell-cycle-protocol

Target Species

Chemical

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

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)
1% Bovine Serum Albumin

Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Bromodeoxyuridine conjugated to BSA
RRID	AB_1604671
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 myeloma cell line
Specificity	**Mouse anti BrdU antibody, clone Bu20a** recognizes bromodeoxyuridine (known as BrdU or BrdUrd). BrdU is a synthetic thymidine analog, which is incorporated to new DNA during replication instead of thymidine. BrdU can therefore be used to identify newly synthesized DNA. Mouse anti BrdU antibody, clone Bu20a, recognizes BrdU and other thymidine analogs; 5′-chloro-2′-deoxyuridine (CldU), 5′-iodo-2′-deoxyuridine (IdU) and 2′-deoxy-5-ethynyluridine (EdU), but only shows minimal reactivity with thymidine itself (Aten *et al*. 1992, Liboska *et al*. 2012, Magaud *et al*. 1989). Antibody detection of incorporated BrdU in cellular DNA is extensively referenced as an accurate method to monitor cell proliferation *in vivo* and *in vitro*. In cell proliferation assays BrdU staining is coupled with the use of a dye that binds total DNA such as propidium iodide (PI). BrdU can be administered diluted in the culture medium or, *in vivo* via intraperitoneal injection, subcutaneous osmotic pump implants (Tesfaigzi *et al*. 2004) or in drinking water (Moser *et al*. 2004). BrdU can be used as a thymidine analog in a wide range of organisms ranging from mammalian cells, through reptiles and amphibians to invertebrate species and plants. Mouse anti BrdU antibody, clone Bu20a, is suitable for detecting incorporated BrdU in a wide variety of cell types and is suitable for use on tissue sections in double-labeling techniques (Makarev and Gorivodsky 2014).
Flow Cytometry	Use 10 µl of the suggested working dilution to label 1x10^6 cells in 100 µl
References	1. Magaud, J.P. *et al.* (1989) Double immunocytochemical labeling of cell and tissue samples with monoclonal anti-bromodeoxyuridine. J Histochem Cytochem. 37 (10): 1517-27. 2. Innis, S.M. *et al.* (2010) Perinatal lipid nutrition alters early intestinal development and programs the response to experimental colitis in young adult rats. Am J Physiol Gastrointest Liver Physiol. 299 (6): G1376-85. 3. Caronia, G. *et al.* (2010) Bone morphogenetic protein signaling in the developing telencephalon controls formation of the hippocampal dentate gyrus and modifies fear-related behavior. J Neurosci. 30: 6291-301. 4. Pappalardo, L.W. *et al.* (2014) Voltage-gated sodium channel Nav 1.5 contributes to astrogliosis in an in vitro model of glial injury via reverse Na+ /Ca2+ exchange. Glia. 62 (7): 1162-75. 5. Laitman, B.M. *et al.* (2016) The Transcriptional Activator Krüppel-like Factor-6 Is Required for CNS Myelination. PLoS Biol. 14 (5): e1002467. 6. Furukawa, S. *et al.* (2017) Databases for technical aspects of immunohistochemistry. J

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14. Zhang, J. *et al.* (2017) The mechanisms underlying olfactory deficits in apolipoprotein E-deficient mice: focus on olfactory epithelium and olfactory bulb Neurobiology of Aging. Oct 10 [Epub ahead of print].
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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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

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