

Datasheet: MCA2483GA

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|----------------------|---------------------|
| Description: | MOUSE ANTI BrdU |
| Specificity: | BrdU |
| Other names: | 5-BROMODEOXYURIDINE |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | Bu20a |
| Isotype: | IgG1 |
| Quantity: | 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.

| | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry (1) | ▪ | | | 1/25 - 1/100 |
| Immunohistology - Frozen | ▪ | | | |
| Immunohistology - Paraffin | ▪ | | | |
| Immunofluorescence | ▪ | | | |
| Immunocytochemistry (2) | ▪ | | | 1/25 - 1/100 |

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

(2) BrdU labeling and immunostaining protocol can be found at:

www.bio-rad-antibodies.com/brdu-labeling-and-immunostaining-protocol

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|------------------------|---|
| Target Species | Chemical |
| Product Form | Purified IgG - liquid |
| Preparation | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |
| Buffer Solution | Phosphate buffered saline |

| | |
|---------------------------------------|--|
| Preservative Stabilisers | 0.09% Sodium Azide (NaN ₃) |
| Carrier Free | Yes |
| Approx. Protein Concentrations | IgG concentration 1.0 mg/ml |
| Immunogen | Bromodeoxyuridine conjugated to BSA |
| Fusion Partners | Spleen cells from immunised Balb/c mice were fused with cells of the NS1 myeloma cell line |
| Specificity | <p>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).</p> <p>Antibody detection of incorporated BrdU in cellular DNA is extensively referenced as an accurate method to monitor cell proliferation <i>in vivo</i> and <i>in vitro</i>. 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, <i>in vivo</i> via intraperitoneal injection, subcutaneous osmotic pump implants (Tesfaiqzi et al. 2004) or in drinking water (Moser et al. 2004).</p> <p>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).</p> |
| Flow Cytometry | Use 10µl of the suggested working dilution to label 1x10 ⁶ cells in 100µl |
| References | <ol style="list-style-type: none"> Magaud, J.P. <i>et al.</i> (1989) Double immunocytochemical labeling of cell and tissue samples with monoclonal anti-bromodeoxyuridine. J Histochem Cytochem. 37 (10): 1517-27. Innis, S.M. <i>et al.</i> (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. Caronia, G. <i>et al.</i> (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. Pappalardo, L.W. <i>et al.</i> (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. |

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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 \[Epub ahead of print\].](#)
15. 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.](#)

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: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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
'M390512:210914'

Printed on 20 Sep 2021

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