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.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry (1)</td>
<td></td>
<td></td>
<td></td>
<td>Neat - 1/10</td>
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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-staining-cell-cycle-protocol

Target Species
Chemical

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

Max Ex/Em
<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
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<tbody>
<tr>
<td>FITC</td>
<td>490</td>
<td>525</td>
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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 (NaN₃)
1% Bovine Serum Albumin

Approx. Protein Concentrations
IgG concentration 0.1 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**

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-ethyluridine (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 (Tesfaiqzi 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 1x10⁶ cells in 100 μl

**References**

E-deficient mice: focus on olfactory epithelium and olfactory bulb [Neurobiology of Aging, Oct 10 [Epub ahead of print].

### Storage
Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. 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.

### Health And Safety Information

### Regulatory
For research purposes only.