### Overview

#### Product name
Anti-5-methylcytosine (5-mC) antibody [33D3]  

#### Description
Mouse monoclonal [33D3] to 5-methylcytosine (5-mC)

#### Host species
Mouse

#### Specificity
Modified base 5-methylcytidine found in DNA of plants and vertebrates. Raised against the modified ribonucleoside. Specific for the presence of a methyl group on carbon 5 of the pyrimidine ring.

#### Tested applications
Suitable for: IHC-P, IP, Southern Blot, Flow Cyt, IHC-Fr

#### Unsuitable for: ICC

#### Species reactivity
Reacts with: Species independent

#### Immunogen
Chemical/ Small Molecule corresponding to 5-methylcytosine (5-mC).

#### General notes
Storage in frost-free freezers is not recommended. Should this product contain a precipitate microcentrifugation before use. While older lots have performed well in ICC, we have received inconsistent results with the latest lots. Unfortunately, we can no longer guarantee this antibody for use in ICC.

Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.
Properties

Form  Liquid

Storage instructions  Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer  pH: 7.40
Constituents: PBS, 0.8% Sodium chloride, 0.02% Potassium chloride, 0.03% Dibasic monohydrogen sodium phosphate

Purity  Protein A purified

Primary antibody notes  Ab10805 recognises the modified base 5-methylcytidine found in DNA of plants and vertebrates. DNA methylation is a DNA modification process, which is involved in the control of gene expression. Reports suggest that in tumours, DNA is frequently globally hypomethylated compared to the DNA from normal tissue.

Clonality  Monoclonal

Clone number  33D3

Myeloma  Sp2/0-Ag14

Isotype  IgG1

Light chain type  kappa

Applications

Our Abpromise guarantee covers the use of ab10805 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Southern Blot</td>
<td>1/200.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. Use 10ul of working dilution to label 1000000 cells in 100ul. (see Habib, M. et al. (1999)). ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Application notes  Is unsuitable for ICC.

Target

Form  The native context of double-stranded DNA may obstruct antibody binding to 5-methylcytosine.
For successful detection of 5-methylcytosine, we recommend that the DNA is denatured to make the nucleotides accessible for the antibody. Denaturing methods vary depending on each application.

Images

ab10805 staining 5-Methyl Cytidine in pig embryo (15 to 17 days) tissue section by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue underwent fixation in paraformaldehyde, heat mediated antigen retrieval in Tris-EDTA buffer, permeabilization in Triton X-100 and blocking in 2% BSA for 10 minutes at 25°C. The primary antibody was diluted, 1/100 (PBS + 2% BSA) and incubated with sample for 1 hour at 25°C. An Alexa Fluor® 488 conjugated donkey polyclonal to mouse at 1/250 dilution, was used as secondary.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.

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