

Product datasheet

Anti-5-methylcytosine (5-mC) antibody [5MC-CD] ab73938

★★★★☆ [2 Abreviews](#) [29 References](#) [2 Images](#)

Overview

Product name	Anti-5-methylcytosine (5-mC) antibody [5MC-CD]
Description	Mouse monoclonal [5MC-CD] to 5-methylcytosine (5-mC)
Host species	Mouse
Specificity	ab73938 reacts with DNA with 5-Methylcytosine (methylated DNA).
Tested applications	Suitable for: Southern Blot, ICC/IF
Species reactivity	Reacts with: Species independent
Immunogen	Chemical/ Small Molecule corresponding to 5-methylcytosine (5-mC) conjugated to Bovine Serum Albumin (BSA).
Positive control	Chlamidomonas me-1 cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 6 Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purification notes	ab73938 is purified and filter-sterilised.
Clonality	Monoclonal
Clone number	5MC-CD
Isotype	IgM

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab73938 in the following tested applications.

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

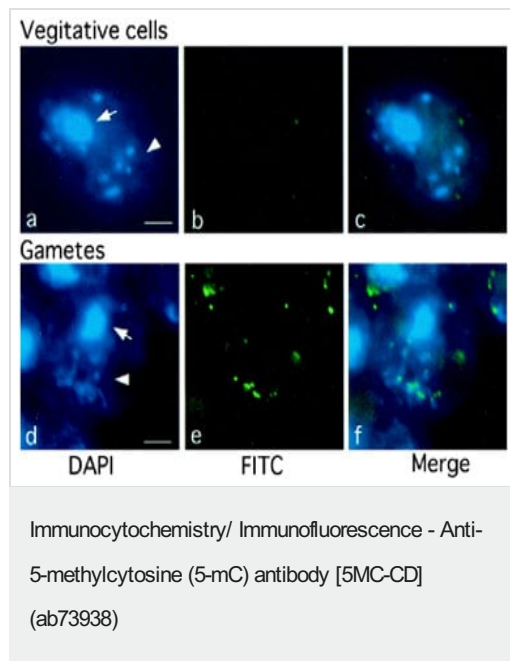
Application	Abreviews	Notes
Southern Blot		1/1000. Immunoblotting - detection of DNA with 5-methylcytosine on nitrocellulose. Use at 1/1000
ICC/IF	★☆☆☆☆ (1)	1/50 - 1/100. Recommend fixing in 4% PFA followed by denaturation with 70% formamide in 2x SSC and chilling in 70%, 95%, and 99% EtOH for 2 min each. Diluting antibody in SSC (saline sodium citrate) may give optimal results. See protocols from PubMed: 11983892 and 17994007

Target

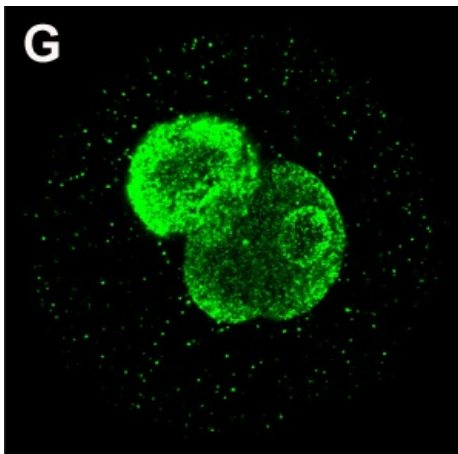
Form

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



Methylation of chloroplast DNA visualized by immunochemistry. Samples are Chlamidomonas me-1 cells. Left: DAPI-stained cells. Middle: Cells stained with ab73938 and FITC-conjugated 2nd antibody. Right: Merged image. Chloroplast DNA is exclusively methylated in gamete cells



ab73938 staining 5-Methyl Cytosine in murine PN5 zygotes by Immunocytochemistry/ Immunofluorescence.

Cells were fixed with methanol/acetic acid (3:1) and blocked with 30% serum for overnight at 4°C. Samples were incubated with primary antibody (1/100 in diluent) for 18 hours at 4°C before detection with a fluorescent secondary antibody.

Immunocytochemistry/ Immunofluorescence - Anti-5-methylcytosine (5-mC) antibody [5MC-CD] (ab73938)

Image from Li Y & O'Neill C., PLoS One. 2012;7(1):e30687. Epub 2012 Jan 26. Fig 5.; doi:10.1371/journal.pone.0030687; January 26, 2012, PLoS ONE 7(1): e30687.

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

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