

## Product datasheet

# Anti-N4-methylcytidine (m4C) antibody [EPR -19850-108] ab211494

Recombinant RabMAb

3 Images

### Overview

<b>Product name</b>	Anti-N4-methylcytidine (m4C) antibody [EPR -19850-108]
<b>Description</b>	Rabbit monoclonal [EPR -19850-108] to N4-methylcytidine (m4C)
<b>Host species</b>	Rabbit
<b>Specificity</b>	Has been developed to discriminate between the modified base N4-methylcytidine (m4C) and the unmodified counterpart Cytidine (C).
<b>Tested applications</b>	<b>Suitable for:</b> IP, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Synthetic fragment
<b>Immunogen</b>	Chemical/ Small Molecule. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IP: 5' Biotin-mN.mN.mN.mN.mN.[m4C]*.mN.mN.mN.mN.mN 3' * - phosphorothioate protection. ELISA: Biotinylated m4C-modified oligonucleotides.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR -19850-108
<b>Isotype</b>	IgG

## Applications

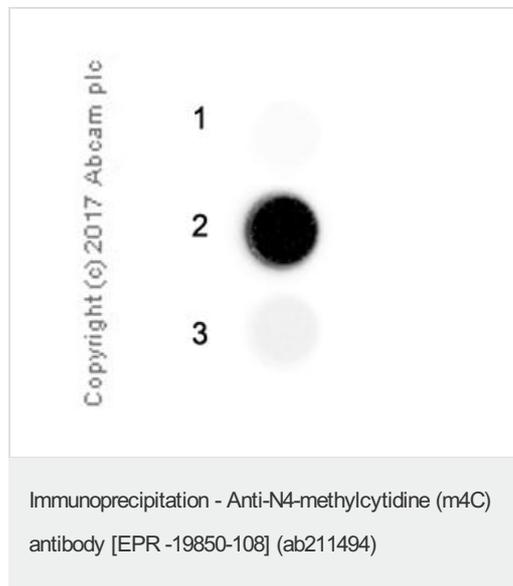
**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab211494 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>IP</b>		Use at an assay dependent concentration. 0.2 µg of ab211494 was coated onto 50 µL Dynabeads® sheep-anti-rabbit IgG.
<b>ELISA</b>		Use a concentration of 0.005 - 4 µg/ml.

## Target

**Relevance** N4-methylcytidine (m4C) is a modification to RNA present in mitochondrial rRNA in eukaryotes.

## Images



The IP was performed in a U-bottom non-adsorbing propylene 96-well plate.

ab211494 (0.2 µg) was coated into Dynabeads® sheep-anti-rabbit IgG (50 µl) for 1h at RT.

Unmodified/modified oligonucleotides (5 µM) were added to samples containing the antibody/bead complexes and incubated with agitation for 1 hour at RT.

After washing, Peroxidase-conjugated Streptavidin was incubated at 1/1000 dilution with agitation for 1 hour at RT.

ECL substrate was then added and the results read in a non-transparent 96-well plate with a digital detector and analyzed using ImageJ.

**Lane 1:** Buffer only.

**Lane 2:** Modified oligonucleotide (5 µM), 5' Biotin-mN.mN.mN.mN.mN.[m4C]\*.mN.mN.mN.mN.mN 3'

**Lane 3:** Unmodified oligonucleotide (5 µM), 5' Biotin-mN.mN.mN.mN.mN.[C]\*.mN.mN.mN.mN.mN 3'

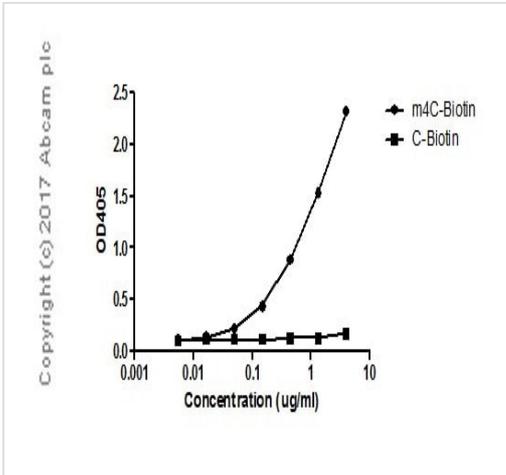
N - equimolar mixture of (A/U/G/C)

m - 2'O methyl protection

\* - phosphorothioate protection

**Blocking buffer and concentration:** 5% NFDm/TBST

**Dilution buffer and concentration:** TBST/0.1% Triton X-100/1 mM EDTA



ELISA - Anti-N4-methylcytidine (m4C) antibody [EPR -19850-108] (ab211494)

Biotinylated m4C (modified) and C (unmodified) oligonucleotides with the below sequence were coated onto wells of a 96 well plate.

Modified oligonucleotide (5  $\mu$ M), 5' Biotin-mN.mN.mN.mN.mN.

[m4C]\*.mN.mN.mN.mN.mN 3'

Unmodified oligonucleotide (5  $\mu$ M), 5' Biotin-mN.mN.mN.mN.mN.

[C]\*.mN.mN.mN.mN.mN 3'

N - equimolar mixture of (A/U/G/C)

m - 2'O methyl protection

\* - phosphorothioate protection

ELISA was performed on 1.0  $\mu$ g/ml of antigen using ab211494 at a concentration range of 0.005-4.000  $\mu$ g/ml, followed by Goat Anti-Rabbit IgG, (H+L), alkaline phosphatase conjugated secondary antibody at 1/2500 dilution.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

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