

Product datasheet

Anti-N2,N2-dimethylguanosine (m2,2G) antibody [EPR-19838-40] ab211488

Recombinant RabMAb

5 Images

Overview

Product name	Anti-N2,N2-dimethylguanosine (m2,2G) antibody [EPR-19838-40]
Description	Rabbit monoclonal [EPR-19838-40] to N2,N2-dimethylguanosine (m2,2G)
Host species	Rabbit
Specificity	Has been developed to discriminate between the modified base N2,N2-dimethylguanosine (m2,2G) and the unmodified counterpart Guanosine (G).
Tested applications	Suitable for: Dot blot, IP, ELISA
Species reactivity	Reacts with: Synthetic fragment
Immunogen	Chemical/ Small Molecule. This information is proprietary to Abcam and/or its suppliers.
Positive control	IP: 5' Biotin-mN-mN-mN-mN-mN-[m2,2G]*-mN-mN-mN-mN-mN 3' * - phosphorothioate protection. ELISA: Biotinylated m2,2G-modified oligonucleotides.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR-19838-40
Isotype	IgG

Applications

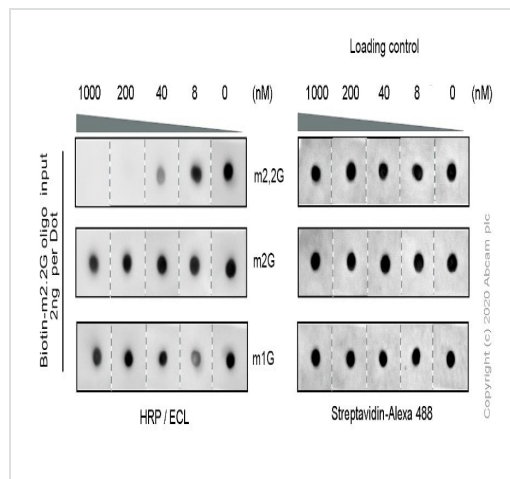
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab211488 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

Target

Relevance N2,N2-dimethylguanosine (m2,2G) is an RNA modification found in tRNA in eukarya and archaea and rRNA in bacteria and eukaryotes.

Images



Dot Blot - Anti-N2,N2-dimethylguanosine (m2,2G) antibody [EPR-19838-40] (ab211488)

Primary antibody dilution: 1/500

Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated

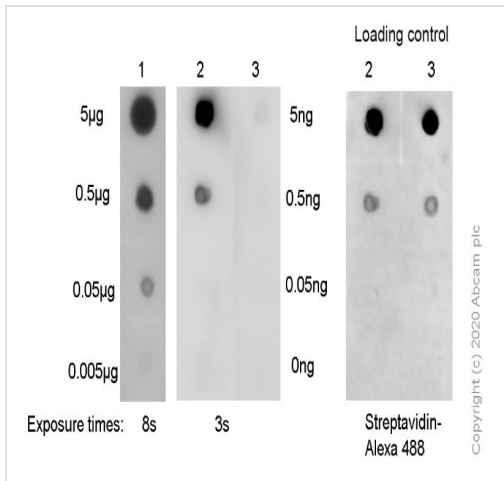
Secondary antibody dilution: 1/100,000

Blocking and dilution buffer: AdvanBlock™ Chemi Blocking buffer

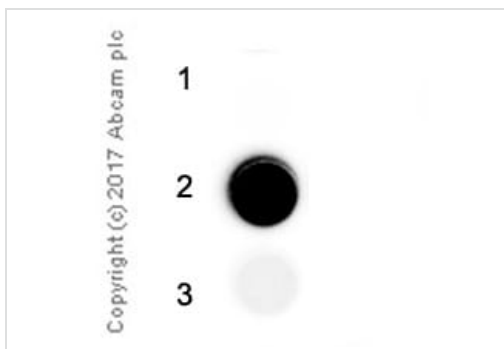
Input: Biotin-m2,2G oligo 2 ng per Dot

Competitive nucleosides: m2,2G, m2G, m1G

Exposure times: 37 seconds



Dot Blot - Anti-N₂,N₂-dimethylguanosine (m₂,2G) antibody [EPR-19838-40] (ab211488)



Immunoprecipitation - Anti-N₂,N₂-dimethylguanosine (m₂,2G) antibody [EPR-19838-40] (ab211488)

Lane 1: Yeast tRNA

Lane 2: Biotin-m₂.2G RNA oligo

Lane 3: Biotin-G RNA oligo

Primary antibody dilution: 1/500

Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated

Secondary antibody dilution: 1/20,000

Blocking and dilution buffer: AdvanBlock™ Chemi Blocking buffer

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

ab211488 (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.[m₂,2G]*.mN.mN.mN.mN.mN 3'

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

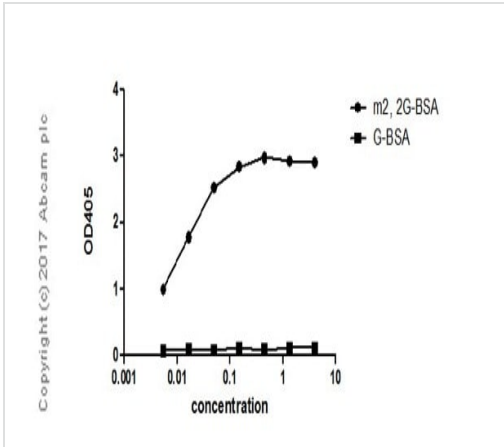
N - equimolar mixture of (A/U/G/C)

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



BSA-conjugated m2,2G (modified) and G (unmodified) nucleosides were coated onto wells of a 96 well plate. ELISA was performed on 1.0 µg/ml of antigen using ab211488 at a concentration range of 0.005-4.000 µg/ml, followed by Goat Anti-Rabbit IgG, (H+L), alkaline phosphatase conjugated secondary antibody at 1/2500 dilution.

ELISA - Anti-N2,N2-dimethylguanosine (m2,2G) antibody [EPR-19838-40] (ab211488)

Why choose a recombinant antibody?

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

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

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