

# PRODUCT INFORMATION

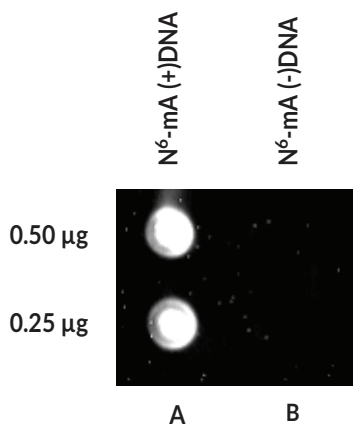
## N<sup>6</sup>-Methyladenosine Monoclonal Antibody (Clone 17-3-4-1)

Item No. 18336

### Overview and Properties

<b>Contents:</b>	This vial contains 100 µg of protein A-purified antibody.
<b>Synonym:</b>	m <sup>6</sup> A
<b>Immunogen:</b>	N <sup>6</sup> -Methyladenosine conjugated to BSA
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	100 µl of PBS, pH 7.2, with 0.02% sodium azide
<b>Clone:</b>	17-3-4-1
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1k
<b>Applications:</b>	Dot blot, ELISA, and immunoprecipitation (IP); the recommended starting dilution for dot blot is 1:500 and 1:200 for ELISA and IP. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



N<sup>6</sup>-methyladenine and N<sup>6</sup>-methyladenine-free containing DNA oligomers were blotted to nitrocellulose under denaturing conditions at the concentrations shown. The blots were probed with N<sup>6</sup>-methyladenosine polyclonal antibody at 2 µg/ml.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

N<sup>6</sup>-Methyladenosine (m<sup>6</sup>A) is an abundant modification found in mRNA, tRNA, snRNA, as well as long non-coding RNA, in all species. RNA adenosine methylation is catalyzed by a multicomponent complex composed of METTL3/MT-A70, METTL14, and WTAP in mammals. METTL3 and METTL14 are responsible for the methyltransferase activity of the complex, and WTAP mediates substrate recruitment.<sup>1</sup> The process shares similarities to histone methylation in that the modification is installed by m<sup>6</sup>A methylation "writers", detected by methylation-specific "readers", and can be reversed by demethylation "erasers". The m<sup>6</sup>A modification has been shown to be conserved in the vicinity of stop codons and the 3'-untranslated region of specific mouse and human mRNAs.<sup>2</sup> The process of regulating m<sup>6</sup>A modifications in mammalian mRNA has been linked to disease, where fat mass and obesity-associated (FTO) has been reported to be an obesity risk gene.<sup>2</sup> FTO is an m<sup>6</sup>A demethylase and polymorphisms that result in increased FTO expression are associated with increased body mass and risk of obesity. Cayman's N<sup>6</sup>-Methyladenosine Monoclonal Antibody (Clone 17-3-4-1) can be used for dot blot, ELISA, and immunoprecipitation applications.

## References

1. Bodi, Z., Button, J.D., Grierson, D., *et al.* Yeast targets for mRNA methylation. *Nucleic Acids Res.* **38**(16), 5327-5335 (2010).
2. Fu, Y., Jia, G., Pang, X., *et al.* FTO-mediated formation of N<sup>6</sup>-hydroxymethyladenosine and N<sup>6</sup>-formyladenosine in mammalian RNA. *Nat. Commun.* **4**, 1798 (2013).

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