

m6A

Cat.No. 202 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 10000 (AP staining) suitable for WB and Dot Blot IP: not recommended ICC: not tested yet IHC: not tested yet IHC-P/FFPE: not tested yet
Clone	345E11
Subtype	IgG2b (κ light chain)
Immunogen	N6-methyladenosine fused to BSA.
Reactivity	Reacts with: human, rat, mouse, eukaryotes, prokaryotes. Other species not tested yet.
Specificity	Specific for N6-methyladenosine (m6A) with some cross-reactivity to m6Am.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

m6A (N6-methyladenosine) is a posttranscriptional RNA-modification found throughout all kingdoms, e.g. in vertebrate snRNAs U2, U4, U6, in viral and eukaryotic mRNAs, and in *E. coli* 16S rRNA. Recent studies have found that mRNA is predominately m6A modified at stop codons and long internal exons, which are conserved between mouse and human. The so-called RNA methylome probably plays an important role in the regulation of gene expression. In *E. coli* Dam methylase introduces m6A modifications on the DNA level at the 5'-GATC-3' motif. This allows the cell to differentiate between the parental and the daughter strand during mismatch repair.

Selected References SYSY Antibodies

Single-nucleotide-resolution mapping of m6A and m6Am throughout the transcriptome. Linder B, Grozhik AV, Olarerin-George AO, Meydan C, Mason CE, Jaffrey SR Nature methods (2015) 12(8): 767-72. **DOTBLOT, IP; tested species: human,mouse**

N6-methyladenosine marks primary microRNAs for processing. Alarcón CR, Lee H, Goodarzi H, Halberg N, Tavazoie SF Nature (2015) 519(7544): 482-5. **WB**

Temporal Control of Mammalian Cortical Neurogenesis by m6A Methylation. Yoon KJ, Ringeling FR, Vissers C, Jacob F, Pokrass M, Jimenez-Cyrus D, Su Y, Kim NS, Zhu Y, Zheng L, Kim S, et al. Cell (2017) 171(4): 877-889.e17. **DOTBLOT; tested species: mouse**

Identification of Methylated Deoxyadenosines in Genomic DNA by dA6m DNA Immunoprecipitation. Koziol MJ, Bradshaw CR, Allen GE, Costa AS, Frezza C Bio-protocol (2016) 6(21): . **IP**

Identification of methylated deoxyadenosines in vertebrates reveals diversity in DNA modifications. Koziol MJ, Bradshaw CR, Allen GE, Costa ASH, Frezza C, Gurdon JB Nature structural & molecular biology (2016) 23(1): 24-30. **IP**

Selected General References

Antibodies specific for N6-methyladenosine react with intact snRNPs U2 and U4/U6. Bringmann P, Lührmann R FEBS letters (1987) 213(2): 309-15.

RNA m6A methylation regulates the ultraviolet-induced DNA damage response. Xiang Y, Laurent B, Hsu CH, Nachtergaele S, Lu Z, Sheng W, Xu C, Chen H, Ouyang J, Wang S, Ling D, et al. Nature (2017) 543(7646): 573-576.

Human METTL16 is a N6-methyladenosine (m6A) methyltransferase that targets pre-mRNAs and various non-coding RNAs. Warda AS, Kretschmer J, Hackert P, Lenz C, Urlaub H, Höbartner C, Sloan KE, Bohnsack MT EMBO reports (2017) 18(11): 2004-2014.

Identification of Methylated Deoxyadenosines in Genomic DNA by dA6m DNA Immunoprecipitation. Koziol MJ, Bradshaw CR, Allen GE, Costa AS, Frezza C Bio-protocol (2016) 6(21): .

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N6-Methyladenosine in Flaviviridae Viral RNA Genomes Regulates Infection. Gokhale NS, McIntyre ABR, McFadden MJ, Roder AE, Kennedy EM, Gandara JA, Hopcraft SE, Quicke KM, Vazquez C, Willer J, Ilkayeva OR, et al. Cell host & microbe (2016) 20(5): 654-665.

Mouse Maternal High-Fat Intake Dynamically Programmed mRNA m⁶A Modifications in Adipose and Skeletal Muscle Tissues in Offspring. Li X, Yang J, Zhu Y, Liu Y, Shi X, Yang G International journal of molecular sciences (2016) 17(8): .

m(6)A-LAIC-seq reveals the census and complexity of the m(6)A epitranscriptome. Molinie B, Wang J, Lim KS, Hillebrand R, Lu ZX, Van Wittenberghe N, Howard BD, Daneshvar K, Mullen AC, Dedon P, Xing Y, et al. Nature methods (2016) 13(8): 692-8.

Widespread occurrence of N6-methyladenosine in bacterial mRNA. Deng X, Chen K, Luo GZ, Weng X, Ji Q, Zhou T, He C Nucleic acids research (2015) 43(13): 6557-67.

m(6)A RNA methylation is regulated by microRNAs and promotes reprogramming to pluripotency. Chen T, Hao YJ, Zhang Y, Li MM, Wang M, Han W, Wu Y, Lv Y, Hao J, Wang L, Li A, et al. Cell stem cell (2015) 16(3): 289-301.

N6-methyladenosine marks primary microRNAs for processing. Alarcón CR, Lee H, Goodarzi H, Halberg N, Tavazoie SF Nature (2015) 519(7544): 482-5.

N6-adenosine methylation in miRNAs. Berulava T, Rahmann S, Rademacher K, Klein-Hitpass L, Horsthemke B PLoS one (2015) 10(2): e0118438.