

m6A

Cat.No. 202 111; 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 (AP staining) suitable for Dot Blot IP: yes ICC: not tested yet IHC: not tested yet IHC-P/FFPE: not tested yet ELISA: yes
Clone	212B11
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

Epitranscriptomic m6A Regulation of Axon Regeneration in the Adult Mammalian Nervous System. Weng YL, Wang X, An R, Cassin J, Vissers C, Liu Y, Liu Y, Xu T, Wang X, Wong SZH, Joseph J, et al. *Neuron* (2018) 97(2): 313-325.e6. **DOTBLOT; tested species: mouse**

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. **IP**

The SMAD2/3 interactome reveals that TGFβ controls m6A mRNA methylation in pluripotency. Bertero A, Brown S, Madrigal P, Osnato A, Ortman D, Yiangou L, Kadiwala J, Hubner NC, de Los Mozos IR, Sadée C, Lenaerts AS, et al. *Nature* (2018) 555(7695): 256-259. **IP; tested species: human**

Transcriptional Dysregulation in Postnatal Glutamatergic Progenitors Contributes to Closure of the Cortical Neurogenic Period. Donega V, Marcy G, Lo Giudice Q, Zweifel S, Angonin D, Fiorelli R, Abrous DN, Rival-Gervier S, Koehl M, Jabaudon D, Raineteau O, et al. *Cell reports* (2018) 22(10): 2567-2574. **DOTBLOT**

Human ALKBH3-induced m1A demethylation increases the CSF-1 mRNA stability in breast and ovarian cancer cells. Woo HH, Chambers SK. *Biochimica et biophysica acta. Gene regulatory mechanisms* (2018) : . **IP; tested species: human**

Proteolytically released Lasso/teneurin-2 induces axonal attraction by interacting with latrophilin-1 on axonal growth cones. Vysokov NV, Silva JP, Lelianova VG, Suckling J, Cassidy J, Blackburn JK, Yankova N, Djamgoz MB, Kozlov SV, Tonevitsky AG, Ushkaryov YA, et al. *eLife* (2018) 7: . **IP**

Determination of enrichment factors for modified RNA in MeRIP experiments. Slama K, Galliot A, Weichmann F, Hertler J, Feederle R, Meister G, Helm M. *Methods (San Diego, Calif.)* (2018) : . **IP**

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. **IP; tested species: human**

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**

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**

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.

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