SYSY Antibodies

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m6A

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

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Albumin and azide were added for stabilization. For **reconstitution** add 100 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: (AP staining) suitable for WB and Dot Blot **Dot blot**: 1 : 1000 **IP**: yes **ICC**: not tested yet **IHC**: not tested yet **IHC-P (FFPE)**: not tested yet **MeRIP**: yes
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

Background

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 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 for 202 011

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) 128: 767-72. . **DOTBLOT, MERIP; tested species: human,mouse**

Erasing m6A-dependent transcription signature of stress-sensitive genes triggers antidepressant actions.
Wu PF, Han QQ, Chen FF, Shen TT, Li YH, Cao Y, Chen JG, Wang F
Neurobiology of stress (2021) 15: 100390. . **DOTBLOT, ICC; 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) 621: . . **IP**

N6-methyladenosine marks primary microRNAs for processing.
Alarcón CR, Lee H, Goodarzi H, Halberg N, Tavazoie SF
Nature (2015) 5197544: 482-5. . **WB**

Mettl3 promotes reprogramming and axonogenesis of induced retinal ganglion cells.
Zhang K, Liang H, Chen S
Stem cell reports (2026) : 102851. . **MERIP; tested species: mouse**

CHI3L1/YKL-40 signaling inhibits neurogenesis in models of Alzheimer's disease.
Yang X, Jiang W, Li Y, Lee CG, Elias JA, Tang C, Huang YA
Science advances (2025) 1129: eadv1492. . **MERIP; tested species: mouse**

Mettl3 Regulates Lens Development by Promoting the Differentiation Processes of Secondary Fiber Cells.
Hu L, Ma J, Guo J, Liang H, Zhang K, Tan X, Liu Z, Luo L, Liu Y, Chen S
Investigative ophthalmology & visual science (2025) 669: 45. . **MERIP; tested species: mouse**

Role of 6mA in the Regulation of Metabolic Biosynthesis in Sorghum Callus.
Tian K, Liu C, Cai Y, Zhou C
Journal of agricultural and food chemistry (2024) 7234: 19232-19245. . **MERIP; tested species: human**

Inhibition of YTHDF2 triggers proteotoxic cell death in MYC-driven breast cancer.
Einstein JM, Perelis M, Chaim IA, Meena JK, Nussbacher JK, Tankka AT, Yee BA, Li H, Madrigal AA, Neill NJ, Shankar A, et al.
Molecular cell (2021) 8115: 3048-3064.e9. . **MERIP; tested species: human**

The topologies of N6 -Adenosine methylation (m6 A) in land plant mitochondria and their putative effects on organellar gene-expression.
Murik O, Chandran SA, Nevo-Dinur K, Sultan LD, Best C, Stein Y, Hazan C, Ostersetzer-Biran O
The Plant journal : for cell and molecular biology (2019) : . . **MERIP**

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) 1714: 877-889.e17. . **DOTBLOT; tested species: mouse**

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) 231: 24-30. . **IP**

Access the online factsheet including applicable protocols at https://sysy.com/product/202011 or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All SYSY antibodies and control proteins/peptides are shipped lyophilized (vacuum freeze-dried). In this form, they remain stable without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- **Unlabeled** and **biotin-labeled antibodies** and **control proteins** should be stored at **4°C** before reconstitution. **Do not freeze lyophilized antibodies**. Temperatures below 0°C may impair performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long-term storage of lyophilized fluorophore-conjugates may cause aggregation.
- **Control peptides** should be stored at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- **Do not use frost-free ("no-frost") freezers.** These units periodically warm to remove ice buildup, causing freeze–thaw cycles that can damage antibodies.
- Store vials in areas with minimal temperature fluctuation - preferably toward the back of the freezer, not on the door.
- Aliquot reconstituted antibodies and store at –20°C to –80°C.
- Avoid very small aliquots (<20 µL), as evaporation and adsorption to tube surfaces can reduce antibody concentration and activity.
- Use the smallest practical storage vial to minimize surface area.
- Adding glycerol to a final concentration of 50% prevents freezing at -20°C, allowing storage in liquid form and effectively avoiding freeze–thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C

Monoclonal Antibodies

- **Ascites and hybridoma supernatant:** Store at -20°C to -80°C
  Prolonged storage at 4°C is not recommended, as proteases present in ascites may degrade antibodies.
- **Purified IgG:** Store at -20°C to -80°C
  Adding a carrier protein (e.g., BSA) enhances long-term stability.
  Many SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Polyclonal Antibodies

- **Crude antisera:** Can be stored at 4°C with antimicrobials added, but -20°C to -80°C is preferred
- **Affinity-purified antibodies:** Less stable than antisera; store at -20°C to -80°C
  Adding a carrier protein such as BSA improves long-term stability.
  Most SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Fluorescence-labeled Antibodies

- Store as a liquid with 1:1 (v/v) glycerol at -20°C, and protect from light exposure

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All purified SYSY antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the volume of deionized water specified in the corresponding datasheet. If a larger final volume is desired, first add the recommended amount of water, then adjust with PBS and, if needed, add a stabilizing carrier protein (e.g., BSA) to a final concentration of 2%. Some SYSY antibodies already contain albumin; please take this into account before adding additional carrier protein.

For complete reconstitution, carefully remove the vial cap. After adding water, briefly vortex the solution. To collect the liquid at the bottom of the vial, place the vial inside a 50 ml centrifuge tube padded with paper and centrifuge briefly.

- If desired, small amounts of azide or thimerosal may be added to prevent microbial growth. This is particularly recommended when storing an aliquot at 4°C.
- After reconstitution of fluorescence-labeled antibodies, add glycerol 1:1 (v/v) to achieve a final concentration of 50%. This prevents freezing at –20°C and keeps the antibody in liquid form, effectively avoiding freeze–thaw cycles.
- Glycerol may also be added to unlabeled primary antibodies as a general measure to prevent freeze–thaw damage.
- For further guidance, please refer to our **storage tips** and recommendations for reconstituted antibodies, control peptides, and control proteins.