

m6A monoclonal antibody

Full name: N6-methyladenosine monoclonal antibody

Cat. No. C15200082

Type: Monoclonal

Source: Mouse

Lot #: 001

Size: 50 µg/ 25 µl

Concentration: 2 µg/µl

Specificity: Human, mouse, other (wide range): positive

Purity: Protein A purified monoclonal antibody in PBS containing 0.05% azide.

Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Description: Monoclonal antibody raised in mouse against N6-methyladenosine (m6A) conjugated to BSA.

Applications

	Suggested dilution	Results
Dot Blot	1:500	Fig 1, 2
RIP*	5 µg per IP	Fig 3

* Please note that the optimal antibody amount per IP should be determined by the end-user. We recommend testing 1-10 µg per IP.

Target description

N6-methyladenosine (m6A) is a modified base which is abundant in mRNA in most eukaryotes but also has been found in tRNA's, rRNA's, snRNA's and in long non-coding RNA's. Adenosine methylation is catalyzed by m6A methyltransferase, a large protein complex which has a preference for the consensus sequence GGACU. In human, the m6A modification has been identified in more than 7000 genes. It is preferably present around stop codons and in the 3' UTR but has not been observed in poly A tails. m6A is dynamically regulated both throughout development and in response to cellular stimuli. Levels are significantly higher in adulthood than during embryonic development.

Although the presence of m6A in RNA was identified several years ago, it's physiological significance remains largely unknown. It has been proposed to affect mRNA processing and export from nucleus to cytoplasm. Recently, it was shown that mutations in the m6A demethylase gene FTO, which cause a decrease of m6A levels, are associated with an increased risk for obesity and type 2 diabetes.

Results

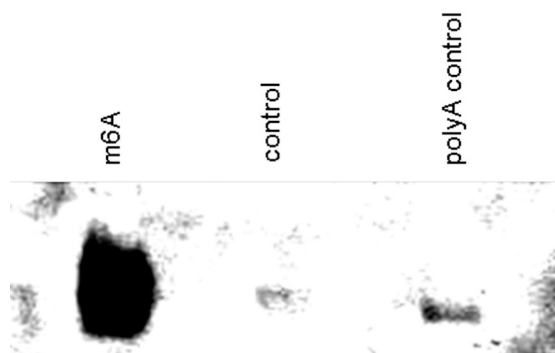


Figure 1. Dot blot analysis using the Diagenode monoclonal antibody directed against m6A

To demonstrate the specificity of the Diagenode monoclonal antibody against m6A [Cat. No. C15200082], a Dot Blot analysis was performed using an m6A containing, a non-methylated control and a non-methylated polyA control synthetic RNA oligonucleotide.

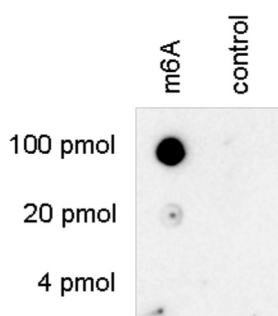


Figure 2. Dot blot analysis using the Diagenode monoclonal antibody directed against m6A

Dot Blot analysis was performed using a synthetic DNA oligonucleotide containing different m6A modified bases and a negative control. 100 to 4 pmol of the respective oligo's were spotted on the membrane. The antibody was diluted of 1:500 in TBS-T containing 10 % skimmed milk and 1% BSA. Figure 1 shows a high specificity of the antibody for the modified oligonucleotide.

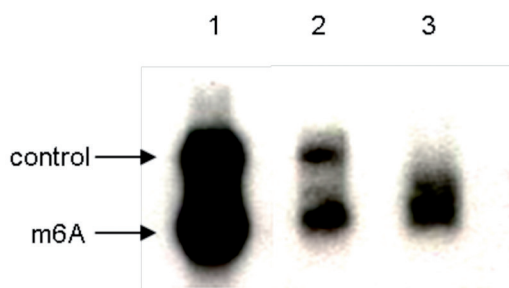


Figure 3. RNA immunoprecipitation using the Diagenode monoclonal antibody directed against m6A

Immunoprecipitation was performed on two radiolabelled synthetic DNA oligo's, a 250 nt oligo containing m6A nucleotides and a 350 nt unmethylated control, using the Diagenode monoclonal m6A antibody (cat. nr. C15200082). The immunoprecipitated fraction is shown in lane 3; lane 2 shows the non bound fraction, whereas the input is shown in lane 1.

Diagenode sa. BELGIUM | EUROPE

LIEGE SCIENCE PARK
Rue Bois Saint-Jean, 3
4102 Seraing (Ougrée) - Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
orders@diagenode.com
info@diagenode.com

Diagenode Inc. USA | NORTH AMERICA

400 Morris Avenue, Suite 101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com

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