diagenode
A Hologic Company

TECHNICAL DATASHEET

Inosine Antibody

Cat. No. C15200251

Type: Monoclonal	Specificity: Human, other (wide range): positive.
Size: 50 µg/29 µl	Isotype: IgG1
Concentration: 1.75 µg/µl	Host: Mouse
Lot No.: 001	Purity: Protein A purified monoclonal antibody.
Storage buffer: PBS containing 0.05% sodium azide.	Storage conditions: 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.	

Last Data Sheet Update: November 16, 2020

Description

Monoclonal antibody raised in mouse against Inosine (I) conjugated to BSA.

Applications

Applications	Suggested dilution	References
RIP *	1 µg per IP	Fig 1, 2 ,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

The formation of Inosine by deamination of adenosine is probably one of the most common post-translational modifications in RNA. It is an essential modification introduced by specialized enzymes in a highly regulated manner to generate transcriptome diversity and deficiencies of the enzymes involved in this conversion leads to a variety in diseases including cancer, viral infections and neurological and psychiatric disorders. Only a small part of the Inosine conversions occurs in coding sequences; the vast majority is present in noncoding sequences such as microRNAs, tRNAs, and introns and 3? untranslated regions of messenger RNAs, which play important roles in the RNA-mediated regulation of gene expression.

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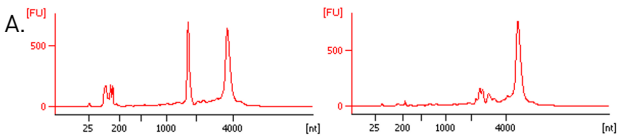
Validation Data



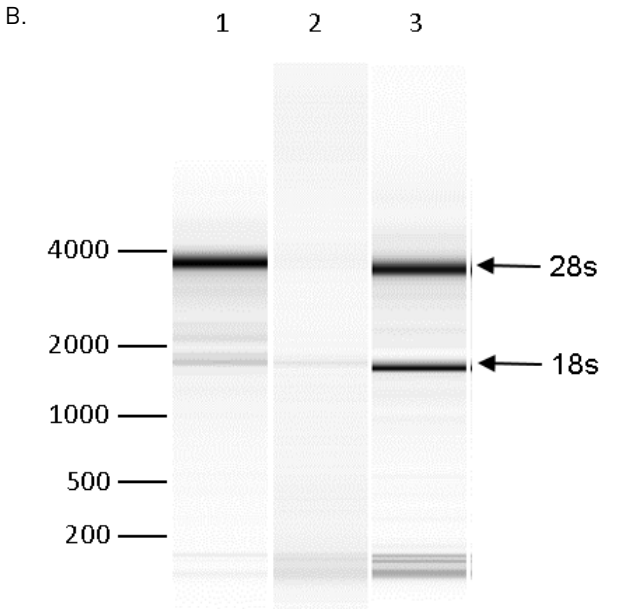


Figure 1. RNA immunoprecipitation using the Diagenode monoclonal antibody directed against Inosine
RNA immunoprecipitation (RIP) was performed on 40 µg total RNA isolated from HeLa cells using 1 µg of the Diagenode monoclonal antibody against Inosine (cat. No. C15200251) or with an equal amount of mouse IgG, used as a negative control. The immunoprecipitated RNA was subsequently analysed on a Bioanalyzer. Figure 1A shows the Bioanalyzer profile obtained with the Inosine antibody (right) The left panel shows the input. Figure 1B shows the gel image for the Inosine antibody, the IgG negative control and the input (lane 1, 2 and 3, respectively). The marker (in bp) is shown on the left, the position of the 28s and 18s ribosomal RNA is indicated on the right.

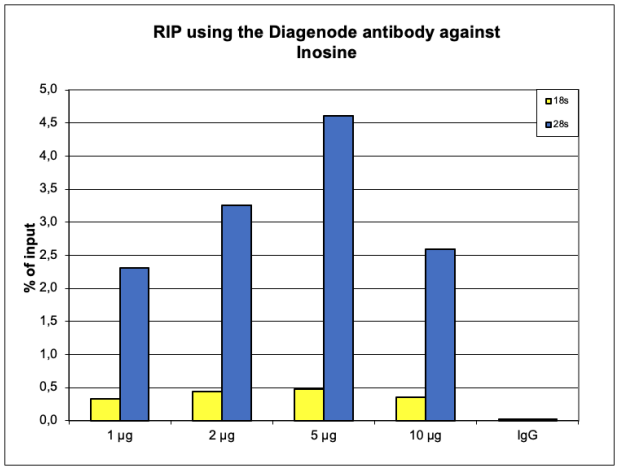


Figure 2. RIP using the Diagenode monoclonal antibody directed against Inosine
RIP assays were performed on 40 µg total RNA from human HeLa cells using the Diagenode antibody against Inosine (cat. No. C15200251). A titration of the antibody consisting of 1, 2, 5 and 10 µg per RIP experiment was analysed. IgG (2 µg/IP) was used as negative IP control. QRT-PCR was performed with primers for the 18s and 28s rRNA genes. Figure 2 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

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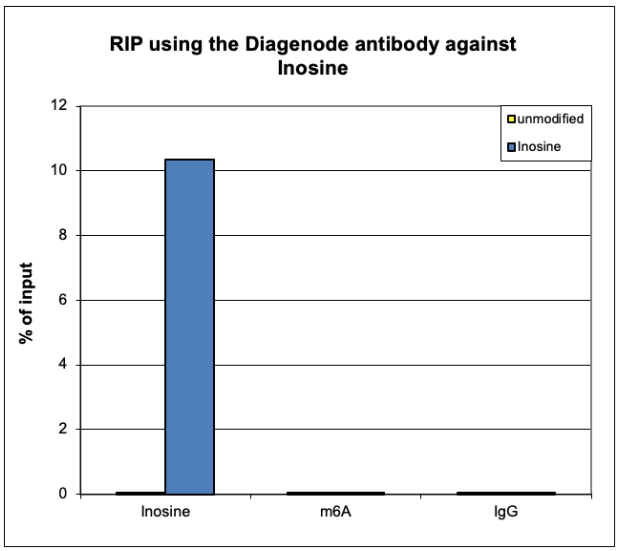

Figure 3. RIP using the Diagenode monoclonal antibody directed against Inosine

RIP was performed with 1 µg of the Diagenode antibody against Inosine (cat. No. C15200251) on 40 µg total RNA from human HeLa cells was spiked with an in vitro produced RNA molecule containing Inosine nucleotides as well as an unmodified control RNA (100 ng each). IgG (1 µg/IP) as well as an m6A antibody (C15410208) were used as negative control. QRT-PCR was performed with primers specific for the Inosine and unmodified RNA molecules. Figure 3 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

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