



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

ADAT1 (h2): 293T Lysate: sc-172004

BACKGROUND

Editing of RNA alters the nucleotide sequence of a transcript to produce codon changes, which can result in alternative translation patterns from a single pre-mRNA. One type of RNA editing involves tRNA-specific Adenosine deaminase, ADAT1, which is responsible for the first step in the processing of eukaryotic tRNA^A transcripts that undergo specific adenosine to inosine modifications. Additionally, members of the double-stranded RNA (dsRNA) Adenosine deaminase family of enzymes, ADAR1 and ADAR2, act on double stranded regions of RNA. dsRNA structures are formed by base pairing of an exonic sequence around the editing site with a complementary sequence in the downstream intron. ADAR family member-mediated editing occurs in the nucleus before splicing removes the respective intron. These enzymes all facilitate the deamination of adenosine to generate inosine, which is then translated as guanosine. ADAR1, ADAR2 and a related brain-specific ADAR family member, RED2, contain a central series of double-stranded RNA-binding motifs and a C-terminal catalytic domain. ADAR1 also contains a novel Zn-DNA binding domain at the N-terminal region, and when bound to Z-DNA-ADAR1 is substantially less susceptible to proteolytic degradation.

REFERENCES

1. Maas, S., Melcher, T., Herb, A., Seeburg, P.H., Keller, W., Krause, S., Higuchi, M. and O'Connell, M.A. 1996. Structural requirements for RNA editing in glutamate receptor pre-mRNAs by recombinant double-stranded RNA Adenosine deaminase. *J. Biol. Chem.* 271: 12221-12226.
2. Melcher, T., Maas, S., Herb, A., Sprengel, R., Higuchi, M. and Seeburg, P.H. 1996. RED2, a brain-specific member of the RNA-specific Adenosine deaminase family. *J. Biol. Chem.* 271: 31795-31798.
3. Rueter, S.M., Maas, S., Herb, A., Sprengel, R., Higuchi, M. and Seeburg, P.H. 1999. Regulation of alternative splicing by RNA editing. *Nature* 399: 75-80.
4. Maas, S., Gerber, A.P. and Rich, A. 1999. Identification and characterization of a human tRNA-specific Adenosine deaminase related to the ADAR family of pre-mRNA editing enzymes. *Proc. Natl. Acad. Sci. USA* 96: 8895-8900.
5. Schade, M., Turner, C.J., Kuhne, R., Schmieder, P., Lowenhaupt, K., Herbert, A., Rich, A. and Oschkinat, H. 1999. The solution structure of the Zn domain of the human RNA editing enzyme ADAR1 reveals a prepositioned binding surface for Z-DNA. *Proc. Natl. Acad. Sci. USA* 96: 12465-12470.
6. Lehmann, K.A. and Bass, B.L. 1999. The importance of internal loops within RNA substrates of ADAR1. *J. Mol. Biol.* 291: 1-13.
7. Keller, W., Wolf, J. and Gerber, A. 1999. Editing of messenger RNA precursors and of tRNAs by adenosine to inosine conversion. *FEBS Lett.* 452: 71-76.

CHROMOSOMAL LOCATION

Genetic locus: ADAT1 (human) mapping to 16q23.1.

PRODUCT

ADAT1 (h2): 293T Lysate represents a lysate of human ADAT1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ADAT1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive ADAT1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.