

Aladin (3E9): sc-100321

BACKGROUND

Aladin (Adracalin) belongs to a family of WD repeat-containing proteins. These proteins have a wide variety of functions, including signal transduction regulation, RNA processing and transcription. Aladin plays a role in peripheral and central nervous system development. It is widely expressed, with the highest expression seen in pituitary gland, corpus callosum, cerebellum, adrenal gland and gastrointestinal structures. Defects in Aladin cause the autosomal recessive disorder achalasia-addisonianism-alacrima (triple A) syndrome. Triple A syndrome is characterized by achalasia, alacrima and adrenocortico-tropin-resistant adrenal insufficiency. Robust expression in neural systems associated with cognitive, motor and sensory functions is consistent with the myriad of symptoms experienced by patients with triple A syndrome.

REFERENCES

1. Tullio-Pelet, A., et al. 2000. Mutant WD-repeat protein in triple A syndrome. *Nat. Genet.* 26: 332-335.
2. Katsumata, N., et al. 2002. Analysis of the AAAS gene in a Japanese patient with triple A syndrome. *Endocr. J.* 49: 49-53.
3. Houlden, H., et al. 2002. Clinical and genetic characterization of families with triple A (Allgrove) syndrome. *Brain* 125: 2681-2690.
4. Cronshaw, J.M., et al. 2003. The nuclear pore complex protein Aladin is mislocalized in triple A syndrome. *Proc. Natl. Acad. Sci. USA* 100: 5823-5827.
5. Salehi, M., et al. 2005. The diagnosis of adrenal insufficiency in a patient with Allgrove syndrome and a novel mutation in the Aladin gene. *Metabolism* 54: 200-205.
6. Storr, H.L., et al. 2005. Identification of the sites of expression of triple A syndrome mRNA in the rat using *in situ* hybridisation. *Neuroscience* 131: 113-123.

CHROMOSOMAL LOCATION

Genetic locus: AAAS (human) mapping to 12q13.13; Aaas (mouse) mapping to 15 F3.

SOURCE

Aladin (3E9) is a mouse monoclonal antibody raised against recombinant Aladin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

Aladin (3E9) is recommended for detection of Aladin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Aladin siRNA (h): sc-45244, Aladin siRNA (m): sc-45245, Aladin shRNA Plasmid (h): sc-45244-SH, Aladin shRNA Plasmid (m): sc-45245-SH, Aladin shRNA (h) Lentiviral Particles: sc-45244-V and Aladin shRNA (m) Lentiviral Particles: sc-45245-V.

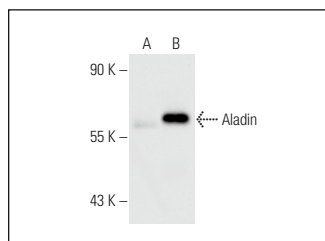
Molecular Weight of Aladin: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, rat cerebellum extract: sc-2398 or Aladin (m2): 293T Lysate: sc-118322.

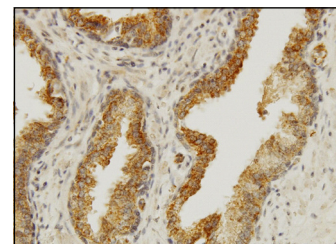
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Aladin (3E9): sc-100321. Western blot analysis of Aladin expression in non-transfected: sc-117752 (A) and mouse Aladin transfected: sc-118322 (B) 293T whole cell lysates.



Aladin (3E9): sc-100321. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Carvalho, S., et al. 2017. Aladin is required for the production of fertile mouse oocytes. *Mol. Biol. Cell* 28: 2470-2478.

PROTOCOLS

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