

ADNP (F-9): sc-376674

BACKGROUND

Activity-dependent neuroprotector (ADNP), also designated activity-dependent neuroprotective protein, is a nuclear protein that functions as a putative transcription factor and may participate in normal growth and cancer proliferation. ADNP is a highly conserved vasoactive intestinal peptide (VIP) responsive gene that is expressed profusely in the brain (primarily cerebellum and cortex regions) and is crucial for brain formation and embryonic development. ADNP is also highly expressed in kidney, placenta, heart, skeletal muscle, breast, and colon cancer tissues. Studies indicate that neuroprotection by subpicomolar PACAP38 might be mediated partially by expression of ADNP. A correlation between brain injuries and elevated ADNP levels indicates a potential involvement of ADNP in an endogenous compensatory mechanism.

REFERENCES

1. Gozes, I., et al. 2003. From vasoactive intestinal peptide (VIP) through activity-dependent neuroprotective protein (ADNP) to NAP: a view of neuroprotection and cell division. *J. Mol. Neurosci.* 20: 315-322.
2. Furman, S., et al. 2005. Sexual dimorphism of activity-dependent neuroprotective protein in the mouse arcuate nucleus. *Neurosci. Lett.* 373: 73-78.

CHROMOSOMAL LOCATION

Genetic locus: ADNP (human) mapping to 20q13.13; Adnp (mouse) mapping to 2 H3.

SOURCE

ADNP (F-9) is a mouse monoclonal antibody raised against amino acids 1-138 mapping at the N-terminus of ADNP of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376674 X, 200 µg/0.1 ml.

APPLICATIONS

ADNP (F-9) is recommended for detection of ADNP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ADNP (F-9) is also recommended for detection of ADNP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ADNP siRNA (h): sc-60127, ADNP siRNA (m): sc-60128, ADNP shRNA Plasmid (h): sc-60127-SH, ADNP shRNA Plasmid (m): sc-60128-SH, ADNP shRNA (h) Lentiviral Particles: sc-60127-V and ADNP shRNA (m) Lentiviral Particles: sc-60128-V.

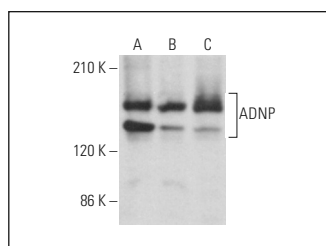
Molecular Weight of ADNP: 150 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, 3T3-L1 cell lysate: sc-2243 or SK-N-MC nuclear extract: sc-2154.

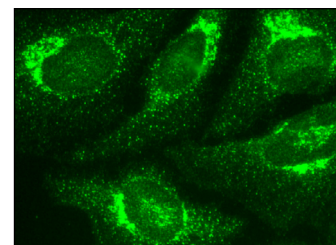
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ADNP (F-9): sc-376674. Western blot analysis of ADNP expression in HeLa (A) and SK-N-MC (B) nuclear extracts and 3T3-L1 whole cell lysate (C).



ADNP (F-9): sc-376674. Immunofluorescence staining of methanol-fixed HeLa cells showing golgi apparatus localization.

SELECT PRODUCT CITATIONS

1. Hadar, A., et al. 2021. Introducing ADNP and SIRT1 as new partners regulating microtubules and histone methylation. *Mol. Psychiatry* 26: 6550-6561.
2. Ganaïem, M., et al. 2022. Distinct impairments characterizing different ADNP mutants reveal aberrant cytoplasmic-nuclear crosstalk. *Cells* 11: 2994.

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.

PROTOCOLS

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