

ADNP (F-5): sc-393377



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: ADNP (human) mapping to 20q13.13.

SOURCE

ADNP (F-5) 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 IgG_{2a} 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-393377 X, 200 µg/0.1 ml.

ADNP (F-5) is available conjugated to agarose (sc-393377 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393377 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393377 PE), fluorescein (sc-393377 FITC), Alexa Fluor® 488 (sc-393377 AF488), Alexa Fluor® 546 (sc-393377 AF546), Alexa Fluor® 594 (sc-393377 AF594) or Alexa Fluor® 647 (sc-393377 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393377 AF680) or Alexa Fluor® 790 (sc-393377 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ADNP (F-5) 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).

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.

ADNP (F-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

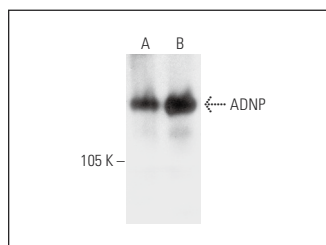
Molecular Weight of ADNP: 150 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat whole cell lysate: sc-2204 or SK-N-MC nuclear extract: sc-2154.

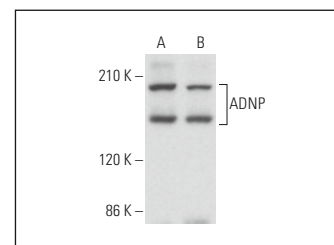
RECOMMENDED SUPPORT REAGENTS

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-5): sc-393377. Western blot analysis of ADNP expression in SK-N-MC (A) and HeLa (B) nuclear extracts.



ADNP (F-5): sc-393377. Western blot analysis of ADNP expression in HeLa nuclear extract (A) and Jurkat whole cell lysate (B).

SELECT PRODUCT CITATIONS

1. Medina, G.N., et al. 2017. Interaction between FMDV L(pro) and transcription factor ADNP is required for optimal viral replication. *Virology* 505: 12-22.
2. Moreau, M., et al. 2022. DYRK1A and activity-dependent neuroprotective protein comparative diagnosis interest in cerebrospinal fluid and plasma in the context of Alzheimer-related cognitive impairment in Down syndrome patients. *Biomedicine* 10: 1380.
3. D'Incal, C.P., et al. 2024. Tracing the invisible mutant ADNP protein in Helmsmoortel-Van der Aa syndrome patients. *Sci. Rep.* 14: 14710.

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.

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