

CNPase (M-300): sc-30158

BACKGROUND

2',3'-cyclic nucleotide-3'-phosphodiesterase (CNPase) is a membrane-bound enzyme that can link tubulin to membranes and may regulate cytoplasmic microtubule distribution. CNPase acts as a microtubule-associated protein by promoting microtubule assembly; this activity resides in the C-terminus of the enzyme. CNPase is firmly associated with tubulin from brain tissue and thyroid cells and can be found at high concentrations in central nervous system Myelin and in the outer segments of photoreceptors in the retina. Acute lead intoxication leads to disturbances in CNPase activity and the morphology of Myelin.

REFERENCES

1. Sprinkle, T.J., et al. 1987. Monoclonal antibody production to human and bovine 2',3'-cyclic nucleotide-3'-phosphodiesterase (CNPase): high-specificity recognition in whole brain acetone powders and conservation of sequence between CNP1 and CNP2. *Brain Res.* 426: 349-357.
2. Vogel, U., et al. 1988. Molecular structure, localization and possible functions of the Myelin-associated enzyme 2',3'-cyclic nucleotide-3'-phosphodiesterase. *J. Neurochem.* 50: 1667-1677.

CHROMOSOMAL LOCATION

Genetic locus: CNP (human) mapping to 17q21.2; Cnp (mouse) mapping to 11 D.

SOURCE

CNPase (M-300) is a rabbit polyclonal antibody raised against amino acids 121-420 mapping at the C-terminus of CNPase of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

CNPase (M-300) is recommended for detection of CNPase isoforms 1 and 2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CNPase siRNA (h): sc-44377, CNPase siRNA (m): sc-40398, CNPase shRNA Plasmid (h): sc-44377-SH, CNPase shRNA Plasmid (m): sc-40398-SH, CNPase shRNA (h) Lentiviral Particles: sc-44377-V and CNPase shRNA (m) Lentiviral Particles: sc-40398-V.

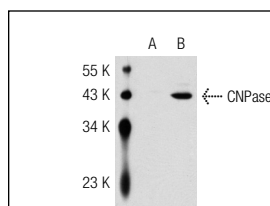
Molecular Weight of CNPase: 46 kDa.

Positive Controls: CNPase (h2): 293T Lysate: sc-114746, CNPase (m): 293T Lysate: sc-125149 or mouse brain extract: sc-2253.

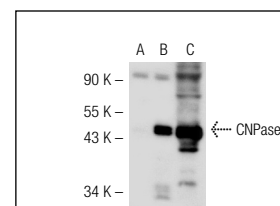
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CNPase (M-300): sc-30158. Western blot analysis of CNPase expression in non-transfected: sc-117752 (A) and human CNPase transfected: sc-114746 (B) 293T whole cell lysates.



CNPase (M-300): sc-30158. Western blot analysis of CNPase expression in non-transfected: sc-117752 (A) and mouse CNPase transfected: sc-125149 (B) 293T whole cell lysates and mouse brain tissue extract (C).

SELECT PRODUCT CITATIONS

1. Gobert, R.P., et al. 2009. Convergent functional genomics of oligodendrocyte differentiation identifies multiple autoinhibitory signaling circuits. *Mol. Cell. Biol.* 29: 1538-1553.
2. Joubert, L., et al. 2010. Chemical inducers and transcriptional markers of oligodendrocyte differentiation. *J. Neurosci. Res.* 88: 2546-2557.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **CNPase (H-2): sc-166558** or **CNPase (G-6): sc-166063**, our highly recommended monoclonal alternatives to CNPase (M-300).