

NTE (H-200): sc-48739

BACKGROUND

Neuropathy target esterase (NTE) is a member of a newly discovered protein family, with a domain conserved through evolution. It is an integral membrane protein present in all neurons and in some non-neural cell types of vertebrates. NTE is important in neural development and has the capacity to hydrolyze esters. It is important in the cell-signaling pathway controlling interactions between neurons and accessory glial cells in nervous system development. NTE can be modified by organo-phosphates, which can cause neuropathy (characterized by axonal degeneration) in humans. NTE loss can lead to prominent neuronal pathology in the thalamus and hippocampus and can also lead to defects in the cerebellum.

REFERENCES

1. Tormo, N., et al. 1993. Soluble and particulate organophosphorus neuropathy target esterase in brain and sciatic nerve of the hen, cat, rat and chick. *J. Neurochem.* 61:2164-2168.
2. Glynn, P., et al. 1999. Neuropathy target esterase. *Biochem. J.* 3: 625-631.
3. Quistad, G.B., et al. 2003. Evidence that mouse brain neuropathy target esterase is a lysophospholipase. *Proc. Natl. Acad. Sci. USA* 100: 7983-7987.

CHROMOSOMAL LOCATION

Genetic locus: PNPLA6 (human) mapping to 19p13.2; Pnpla6 (mouse) mapping to 8 A1.1.

SOURCE

NTE (H-200) is a rabbit polyclonal antibody raised against amino acids 291-490 mapping within an internal region of NTE of human origin.

PRODUCT

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

APPLICATIONS

NTE (H-200) is recommended for detection of NTE 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).

NTE (H-200) is also recommended for detection of NTE in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NTE siRNA (h): sc-44513, NTE siRNA (m): sc-44514, NTE shRNA Plasmid (h): sc-44513-SH, NTE shRNA Plasmid (m): sc-44514-SH, NTE shRNA (h) Lentiviral Particles: sc-44513-V and NTE shRNA (m) Lentiviral Particles: sc-44514-V.

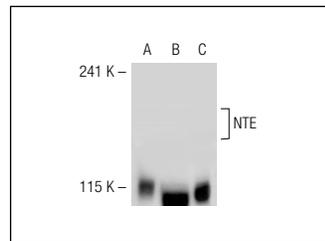
Molecular Weight of NTE: 155 kDa.

Positive Controls: NTE (h2): 293T Lysate: sc-116250 or HeLa whole cell lysate: sc-2200.

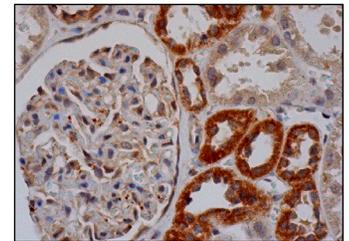
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NTE (H-200): sc-48739. Western blot analysis of NTE expression in non-transfected 293T: sc-117752 (A), human NTE transfected 293T: sc-116250 (B) and HeLa (C) whole cell lysates.



NTE (H-200): sc-48739. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in glomeruli and cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Long, D.X., et al. 2009. Degradation of neuropathy target esterase by the macroautophagic lysosomal pathway. *Life Sci.* 84: 89-96.
2. Chen, J.X., et al. 2010. Regulation of neuropathy target esterase by the cAMP/protein kinase A signal. *Pharmacol. Res.* 62: 259-264.

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 or our catalog for detailed protocols and support products.



Try **NTE (G-4): sc-271049**, our highly recommended monoclonal alternative to NTE (H-200).