

DNTNP (C-20): sc-240330

BACKGROUND

Dorsal neural-tube nuclear protein (DNTNP), also known as FAM53A, is a 398 amino acid nuclear protein. DNTNP is thought to play an important role in neural development by specifying dorsal cell fates within the neural tube. Widely expressed in the dorsal neural tube, DNTNP is most highly expressed in the dorsal regions of the midbrain, the hindbrain, the diencephalon and the spinal neural tube and is expressed at lower levels in the branchial arches, the telencephalon, the heart, and somites of developing embryos. DNTNP is encoded by a gene located on chromosome 4 which contains many genes including the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease.

REFERENCES

- Jun, L., Balboni, A.L., Laitman, J.T. and Bergemann, A.D. 2002. Isolation of DNTNP, which encodes a potential nuclear protein that is expressed in the developing, dorsal neural tube. *Dev. Dyn.* 224: 116-123.
- Hillier, L.W., Graves, T.A., Fulton, R.S., Fulton, L.A., Pepin, K.H., Minx, P., Wagner-McPherson, C., Layman, D., Wylie, K., Sekhon, M., Becker, M.C., Fewell, G.A., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
- Bergemann, A.D., Cole, F. and Hirschhorn, K. 2005. The etiology of Wolf-Hirschhorn syndrome. *Trends Genet.* 21: 188-195.
- Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.

CHROMOSOMAL LOCATION

Genetic locus: FAM53A (human) mapping to 4p16.3.

SOURCE

DNTNP (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DNTNP 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.

Blocking peptide available for competition studies, sc-240330 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

DNTNP (C-20) is recommended for detection of DNTNP of 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); non cross-reactive with FAM53B or FAM53C.

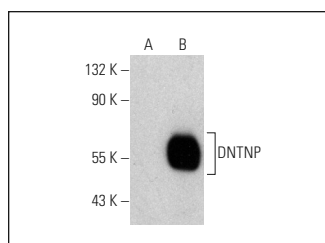
Suitable for use as control antibody for DNTNP siRNA (h): sc-88998, DNTNP shRNA Plasmid (h): sc-88998-SH and DNTNP shRNA (h) Lentiviral Particles: sc-88998-V.

Molecular Weight of DNTNP: 43 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DNTNP (C-20): sc-240330. Western blot analysis of DNTNP expression in non-transfected: sc-117752 (A) and mouse DNTNP transfected: sc-119816 (B) 293T whole cell lysates.

RESEARCH USE

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