

NOPE (h): 293T Lysate: sc-171126

BACKGROUND

NOPE (neighbor of Punc E11) is a 1,250 amino acid protein that is highly similar to Punc (putative neuronal cell adhesion molecule). Both NOPE and Punc are transmembrane proteins that belong to the immunoglobulin (Ig) superfamily, which includes deleted in colorectal cancer (DCC), a cell surface receptor involved in embryonic development. NOPE contains five Fibronectin type-III (FnIII) repeats and four Ig-like C2-type repeats, which suggests a role for NOPE in embryonic differentiation and cell adhesion. Unlike the highly homologous extracellular domains of NOPE and Punc, their cytoplasmic domains are very diverged. NOPE is expressed during embryonic development of the notochord, skeletal muscle and ventricular zone of the nervous system. NOPE can also be expressed in the hippocampus of the adult brain.

REFERENCES

- Salbaum, J.M. 1999. Genomic structure and chromosomal localization of the mouse gene Punc. *Mamm. Genome* 10: 107-111.
- Gruppiso, P.A., et al. 2000. Identification of candidate growth-regulating genes that are overexpressed in late gestation fetal liver in the rat. *Biochim. Biophys. Acta* 1494: 242-247.
- Salbaum, J.M. and Kappen, C. 2000. Cloning and expression of NOPE, a new mouse gene of the immunoglobulin superfamily related to guidance receptors. *Genomics* 64: 15-23.
- Yang, W., et al. 2001. Impaired motor coordination in mice that lack punc. *Mol. Cell. Biol.* 21: 6031-6043.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604184. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Toyoda, R., et al. 2005. Identification of Protogenin, a novel immunoglobulin superfamily gene expressed during early chick embryogenesis. *Gene Expr. Patterns* 5: 778-785.

CHROMOSOMAL LOCATION

Genetic locus: IGDC4 (human) mapping to 15q22.31.

PRODUCT

NOPE (h): 293T Lysate represents a lysate of human NOPE transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

NOPE (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NOPE antibodies. Recommended use: 10-20 µl per lane.

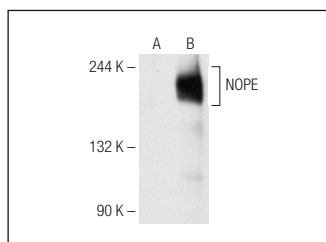
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NOPE (27L-2): sc-100280 is recommended as a positive control antibody for Western Blot analysis of enhanced human NOPE expression in NOPE transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

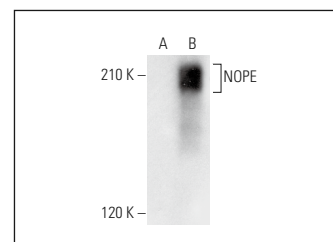
RECOMMENDED SUPPORT REAGENTS

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.

DATA



NOPE (27L-2): sc-100280. Western blot analysis of NOPE expression in non-transfected: sc-117752 (A) and human NOPE transfected: sc-171126 (B) 293T whole cell lysates.



NOPE (A-10): sc-398452. Western blot analysis of NOPE expression in non-transfected: sc-117752 (A) and human NOPE transfected: sc-171126 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.