

Punc (h): 293T Lysate: sc-115923

BACKGROUND

Punc (putative neuronal cell adhesion molecule), also known as IGDC3 (immunoglobulin superfamily DCC subclass member 3), is a 814 amino acid single-pass type I membrane protein that belongs to the immunoglobulin superfamily and the DCC family. The Punc protein exhibits a novel configuration of four Ig-like C2-type (immunoglobulin-like) domains and two fibronectin-type III repeats, and resembles proteins involved in axon guidance. Punc is highly expressed in the nervous system and limb buds of the developing mouse embryo, however, at midgestation expression levels of Punc decrease sharply. The Punc gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 15q22.31. The Punc gene is located distal to the critical region for Stereocilin, also known as DFNB16 (deafness autosomal recessive type 16), which is a nonsyndromic recessive deafness locus that had been mapped to 15q22.31.

REFERENCES

1. Campbell, D.A., et al. 1997. A new locus for non-syndromal, autosomal recessive, sensorineural hearing loss (DFNB16) maps to human chromosome 15q21-q22. *J. Med. Genet.* 34: 1015-1017.
2. Salbaum, J.M. 1998. Punc, a novel mouse gene of the immunoglobulin superfamily, is expressed predominantly in the developing nervous system. *Mech. Dev.* 71: 201-204.
3. Villamar, M., et al. 1999. Deafness locus DFNB16 is located on chromosome 15q13-q21 within a 5-cM interval flanked by markers D15S994 and D15S132. *Am. J. Hum. Genet.* 64: 1238-1241.
4. Salbaum, J.M. 1999. Genomic structure and chromosomal localization of the mouse gene Punc. *Mamm. Genome* 10: 107-111.
5. Yang, W., et al. 2001. Impaired motor coordination in mice that lack Punc. *Mol. Cell. Biol.* 21: 6031-6043.
6. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 604184. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.

CHROMOSOMAL LOCATION

Genetic locus: IGDC3 (human) mapping to 15q22.31.

PRODUCT

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

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.

PROTOCOLS

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

APPLICATIONS

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

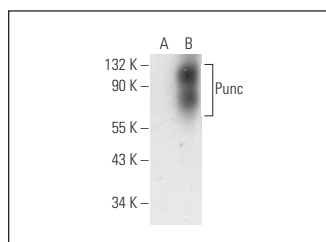
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Punc (F-3): sc-514023 is recommended as a positive control antibody for Western Blot analysis of enhanced human Punc expression in Punc 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



Punc (F-3): sc-514023. Western blot analysis of Punc expression in non-transfected: sc-117752 (A) and human Punc transfected: sc-115923 (B) 293T whole cell lysates.

RESEARCH USE

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