

Punc (T-12): sc-137700

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 15q21-q22.

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. 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/>
6. Yang, W., Li, C. and Mansour, S.L. 2001. Impaired motor coordination in mice that lack punc. *Mol. Cell. Biol.* 21: 6031-6043.
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; Igdc3 (mouse) mapping to 9 C.

SOURCE

Punc (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Punc 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-137700 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Punc (T-12) is recommended for detection of Punc of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Punc (T-12) is also recommended for detection of Punc in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Punc siRNA (h): sc-90198, Punc siRNA (m): sc-152590, Punc shRNA Plasmid (h): sc-90198-SH, Punc shRNA Plasmid (m): sc-152590-SH, Punc shRNA (h) Lentiviral Particles: sc-90198-V and Punc shRNA (m) Lentiviral Particles: sc-152590-V.

Molecular Weight of Punc: 87 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) 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.

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.


 MONOS
 Satisfaction
 Guaranteed

Try **Punc (F-3): sc-514023**, our highly recommended monoclonal alternative to Punc (T-12).