

NPB (P-12): sc-165131

BACKGROUND

NPB (neuropeptide B), also known as PPL7 (preproprotein L7) or PPNPB (pre-neuropeptide B), is a 125 amino acid secreted protein that belongs to the neuropeptide B/W family and may be involved in the regulation of feeding, neuroendocrine system, memory, learning and in the afferent pain pathway. While widely expressed in substantia nigra, hypothalamus, hippocampus, spinal cord, placenta, fetal brain and colorectal adenocarcinoma, NPB is expressed at lower levels in testis, uterus and ovary. The gene that encodes NPB consists of about 710 bases and maps to human chromosome 17q25.3. Comprising over 2.5% of the human genome, chromosome 17 consists of about 81 million bases, encodes over 1,200 genes and has the highest gene density in the genome. Chromosome 17 is also enriched in segmental duplications, ranking third in density among the autosomes.

REFERENCES

1. Varley, J.M., et al. 1997. A detailed study of loss of heterozygosity on chromosome 17 in tumours from Li-Fraumeni patients carrying a mutation to the TP53 gene. *Oncogene* 14: 865-871.
2. Kersemaekers, A.M., et al. 1998. Loss of heterozygosity for defined regions on chromosomes 3, 11 and 17 in carcinomas of the uterine cervix. *Br. J. Cancer* 77: 192-200.
3. Minamoto, T., et al. 2001. Distinct pattern of p53 phosphorylation in human tumors. *Oncogene* 20: 3341-3347.
4. Fujii, R., et al. 2002. Identification of a neuropeptide modified with bromine as an endogenous ligand for GPR7. *J. Biol. Chem.* 277: 34010-34016.
5. Brezillon, S., et al. 2003. Identification of natural ligands for the orphan G protein-coupled receptors GPR7 and GPR8. *J. Biol. Chem.* 278: 776-783.
6. Tanaka, H., et al. 2003. Characterization of a family of endogenous neuropeptide ligands for the G protein-coupled receptors GPR7 and GPR8. *Proc. Natl. Acad. Sci. USA* 100: 6251-6256.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607996. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Kanesaka, M., et al. 2007. Development of a potent and selective GPR7 (NPBW1) agonist: a systematic structure-activity study of neuropeptide B. *J. Pept. Sci.* 13: 379-385.
9. Lambert, N.A. 2008. Dissociation of heterotrimeric G proteins in cells. *Sci. Signal.* 1: re5.

CHROMOSOMAL LOCATION

Genetic locus: NPB (human) mapping to 17q25.3.

SOURCE

NPB (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NPB of human origin.

RESEARCH USE

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

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-165131 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NPB (P-12) is recommended for detection of NPB of 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).

Suitable for use as control antibody for NPB siRNA (h): sc-93969, NPB shRNA Plasmid (h): sc-93969-SH and NPB shRNA (h) Lentiviral Particles: sc-93969-V.

Molecular Weight of NPB: 13 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.

PROTOCOLS

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