

PCAN1 (C-14): sc-163209

BACKGROUND

PCAN1 (prostate cancer protein 1), also known as GDEP (gene differentially expressed in prostate protein) is a 34 amino acid protein that is strongly expressed in prostate and retina. PCAN1 is weakly expressed in salivary gland and liver, and is frequently mutated in prostate tumors. The gene that encodes PCAN1 consists of around 50,300 bases and maps to human chromosome 4q21.21. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is encoded by a gene that maps to chromosome 4. FGFR-3 is also encoded by a gene located on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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3. Reding, D.J., et al. 2001. Identification of a gene frequently mutated in prostate tumors. *Med. Oncol.* 18: 179-187.
4. Olsson, P., et al. 2001. GDEP, a new gene differentially expressed in normal prostate and prostate cancer. *Prostate* 48: 231-241.
5. Cross, D., et al. 2004. Expression and initial promoter characterization of PCAN1 in retinal tissue and prostate cell lines. *Med. Oncol.* 21: 145-153.
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8. Liu, W., et al. 2008. Characterization of two functional NKX3.1 binding sites upstream of the PCAN1 gene that are involved in the positive regulation of PCAN1 gene transcription. *BMC Mol. Biol.* 9: 45.
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CHROMOSOMAL LOCATION

Genetic locus: GDEP (human) mapping to 4q21.21.

SOURCE

PCAN1 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PCAN1 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-163209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCAN1 (C-14) is recommended for detection of PCAN1 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).

Molecular Weight of PCAN1: 4 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.