

PRAC (C-16): sc-74995

BACKGROUND

Prostate, rectum and colon expressed gene protein (PRAC), also known as small nuclear protein PRAC, is a 57 amino acid protein localized to the nucleus. Highly expressed in prostate, rectum and distal colon, and weakly expressed in bladder, PRAC has also been shown to be expressed in the prostate adenocarcinoma cell lines LNCaP and PC-3. The gene encoding PRAC maps to chromosome 17q21.32. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

REFERENCES

1. Feroze-Merzoug, F., Schober, M.S. and Chen, Y.Q. 2001. Molecular profiling in prostate cancer. *Cancer Metastasis Rev.* 20: 165-171.
2. Luo, J., Duggan, D.J., Chen, Y., Sauvageot, J., Ewing, C.M., Bittner, M.L., Trent, J.M. and Isaacs, W.B. 2001. Human prostate cancer and benign prostatic hyperplasia: molecular dissection by gene expression profiling. *Cancer Res.* 61: 4683-4688.
3. Liu, X.F., Olsson, P., Wolfgang, C.D., Bera, T.K., Duray, P., Lee, B. and Pastan, I. 2001. PRAC: A novel small nuclear protein that is specifically expressed in human prostate and colon. *Prostate* 47: 125-131.
4. Olsson, P., Bera, T.K., Essand, M., Kumar, V., Duray, P., Vincent, J., Lee, B. and Pastan, I. 2001. GDEP, a new gene differentially expressed in normal prostate and prostate cancer. *Prostate* 48: 231-241.
5. Chakrabarti, R., Robles, L.D., Gibson, J. and Muroski, M. 2002. Profiling of differential expression of messenger RNA in normal, benign, and metastatic prostate cell lines. *Cancer Genet. Cytogenet.* 139: 115-125.
6. Ahmed, F.E. 2002. Molecular techniques for studying gene expression in carcinogenesis. *J. Environ. Sci. Health C Environ. Carcinog. Ecotoxicol. Rev.* 20: 77-116.
7. Ernst, T., Hergenahn, M., Kenzelmann, M., Cohen, C.D., Iking, U., Kretzler, M., Hollstein, M. and Gröne, H.J. 2002. Gene expression profiling in prostatic cancer. *Verh. Dtsch. Ges. Pathol.* 86: 165-175.
8. Olsson, P., Motegi, A., Bera, T.K., Lee, B. and Pastan, I. 2003. PRAC2: a new gene expressed in human prostate and prostate cancer. *Prostate* 56: 123-130.

CHROMOSOMAL LOCATION

Genetic locus: PRAC (human) mapping to 17q21.32.

SOURCE

PRAC (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PRAC 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-74995 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-74995 X, 200 µg/0.1 ml.

APPLICATIONS

PRAC (C-16) is recommended for detection of PRAC 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 PRAC siRNA (h): sc-76211, PRAC shRNA Plasmid (h): sc-76211-SH and PRAC shRNA (h) Lentiviral Particles: sc-76211-V.

PRAC (C-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PRAC: 6 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.