SANTA CRUZ BIOTECHNOLOGY, INC.

VIT32 (C-12): sc-104745

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Vasopressin (AVP), an antidiuretic hormone, is a cyclic nonpeptide that is involved in the regulation of body fluid osmolality. Vasopressin participates in the metabolism of water and electrolytes and has been identified as a vasoconstrictor. VIT32 (vasopressin-induced transcript 32), also known as VIP32, PP5395 or AVPI1 (arginine vasopressin-induced 1), is a 147 amino acid protein that may play a role in MAP kinase activation, epithelial sodium channel (ENaC) down-regulation and cell cycling. When coexpressed with epithelial sodium channel in *Xenopus laevis* oocytes, VIT32 inhibits Na^+ transport in the collecting duct of kidney and in lung epithelia. The gene encoding VIT32 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

1. Ruppert, S., et al. 1984. Recent gene conversion involving bovine vasopressin and oxytocin precursor genes suggested by nucleotide sequence. Nature 308: 554-557.
2. Doris, P.A. 1984. Vasopressin and central integrative processes. Neuroendocrinology 38: 75-85.
3. Abercrombie, D.M., et al. 1984. Cooperative interactions in neurophysin-neuropeptide hormone complexes. Analytical affinity chromatography of native and covalently-modified neurophysins. Int. J. Pept. Protein Res. 24: 218-232.
4. Alimova-Kost, M.V., et al. 1998. Assignment1 of phosphotriesterase-related gene (PTER) to human chromosome band 10p12 by *in situ* hybridization. Cytogenet. Cell Genet. 83: 16-17.
5. Birnbaumer, M. 1999. Vasopressin receptor mutations and nephrogenic diabetes insipidus. Arch. Med. Res. 30: 465-474.
6. Thomas, C.P., et al. 2004. AVP-induced VIT32 gene expression in collecting duct cells occurs via trans-activation of a CRE in the 5'-flanking region of the VIT32 gene. Am. J. Physiol. Renal Physiol. 287: F460-F468.
7. Nonneman, D. and Rohrer, G.A. 2004. Comparative mapping of human chromosome 10 to pig chromosomes 10 and 14. Anim. Genet. 35: 338-343.

CHROMOSOMAL LOCATION

Genetic locus: AVPI1 (human) mapping to 10q24.2.

SOURCE

VIT32 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of VIT32 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-104745 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VIT32 (C-12) is recommended for detection of VIT32 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).

VIT32 (C-12) is also recommended for detection of VIT32 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for VIT32 siRNA (h): sc-90358, VIT32 shRNA Plasmid (h): sc-90358-SH and VIT32 shRNA (h) Lentiviral Particles: sc-90358-V.

Molecular Weight of VIT32: 17 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.

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.