



TRPV6 (C-16): sc-19104

BACKGROUND

The transient receptor potential (TRP) protein family consists of a diverse group of cation channels functioning in a variety of homeostatic and regulatory pathways. Four subfamilies exist, based on channel domain homology, not activating stimuli: C type (canonical or classical), V type (vanilloid receptor related), M type (melastatin related) and P type (PKD). TRPV6 belongs to the V type subfamily, and it facilitates calcium entry across the plasma membrane in pancreas, placenta and to a lesser extent stomach and kidney tissue. Furthermore, prostate cancer cells overexpress TRPV6, while benign prostate tissues do not express the protein, implying a role for TRPV6 in malignant growth.

REFERENCES

- Hoth, M., et al. 1992. Depletion of intracellular calcium stores activates a calcium current in mast cells. *Nature* 355: 353-356.
- Peng, J.B., et al. 1999. Molecular cloning and characterization of a channel-like transporter mediating intestinal calcium absorption. *J. Biol. Chem.* 274: 22739-22746.
- Peng, J.B., et al. 2000. A rat kidney-specific calcium transporter in the distal nephron. *J. Biol. Chem.* 275: 28186-28194.
- Peng, J.B., et al. 2000. Human calcium transport protein CaT1. *Biochem. Biophys. Res. Commun.* 278: 326-332.
- Vassilev, P.M., et al. 2001. Inhibition of CaT1 channel activity by a non-competitive IP3 antagonist. *Biochem. Biophys. Res. Commun.* 280: 145-150.
- Yue, L., et al. 2001. CaT1 manifests the pore properties of the calcium-release-activated calcium channel. *Nature* 210: 705-709.
- Barley, N.F., et al. 2001. Epithelial calcium transporter expression in human duodenum. *Am. J. Physiol. Gastrointest. Liver Physiol.* 280: 285-290.
- Peng, J.B., et al. 2001. CaT1 expression correlates with tumor grade in prostate cancer. *Biochem. Biophys. Res. Commun.* 282: 729-734.

CHROMOSOMAL LOCATION

Genetic locus: TRPV6 (human) mapping to 7q33-q34; Trpv6 (mouse) mapping to 6.

SOURCE

TRPV6 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRPV6 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-19104 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TRPV6 (C-16) is recommended for detection of TRPV6 (also designated CaT1) 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).

Suitable for use as control antibody for TRPV6 siRNA (h): sc-44171 and TRPV6 siRNA (m): sc-44172.

Molecular Weight of TRPV6: 75 kDa unglycosylated, 85-100 kDa glycosylated.

Positive Controls: Hep G2 cell lysate: sc-2227, Caco-2 cell lysate: sc-2262, SW480 cell lysate: sc-2219, KNRK whole cell lysate: sc-2214, HCT-8 cell lysate: sc-24675 or LNCaP cell lysate: sc-2231.

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.