

TRPV6 (N-16): sc-28396

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 7q34; Trpv6 (mouse) mapping to 6 B2.1.

SOURCE

TRPV6 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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-28396 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 (N-16) is recommended for detection of TRPV6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

TRPV6 (N-16) is also recommended for detection of TRPV6 in additional species, including porcine.

Suitable for use as control antibody for TRPV6 siRNA (h): sc-44171, TRPV6 siRNA (m): sc-44172, TRPV6 shRNA Plasmid (h): sc-44171-SH, TRPV6 shRNA Plasmid (m): sc-44172-SH, TRPV6 shRNA (h) Lentiviral Particles: sc-44171-V and TRPV6 shRNA (m) Lentiviral Particles: sc-44172-V.

Molecular Weight of core TRPV6: 75 kDa.

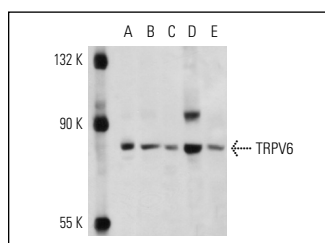
Molecular Weight of glycosylated TRPV6: 100 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, SW480 cell lysate: sc-2219 or KNRK whole cell lysate: sc-2214.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



TRPV6 (N-16): sc-28396. Western blot analysis of TRPV6 expression in Caco-2 (A), SW480 (B), KNRK (C) and HCT-8 (D) whole cell lysates and mouse kidney tissue extract (E).

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.