SANTA CRUZ BIOTECHNOLOGY, INC.

TRPV6 (H-90): sc-28763

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: TRPV6 (human) mapping to 7q34; Trpv6 (mouse) mapping to 6 B2.1.

SOURCE

TRPV6 (H-90) is a rabbit polyclonal antibody raised against amino acids 636-725 mapping at 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.

APPLICATIONS

TRPV6 (H-90) 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), 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).

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 TRPV6 core: 75 kDa.

Molecular Weight of glycosylated TRPV6: 85-100 kDa.

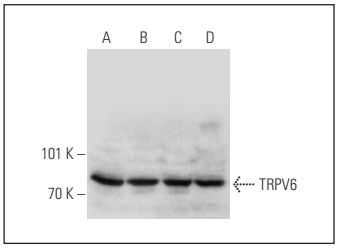
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

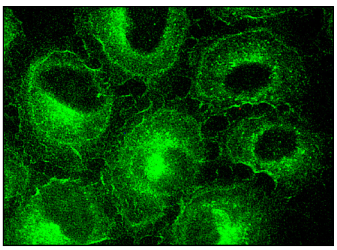
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



TRPV6 (H-90): sc-28763. Western blot analysis of TRPV6 expression in Hep G2 (**A**), Caco-2 (**B**), SW480 (**C**) and DU 145 (**D**) whole cell lysates.



TRPV6 (H-90): sc-28763. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Semenova, S.B., et al. 2009. Endogenous expression of TRPV5 and TRPV6 calcium channels in human leukemia K562 cells. Am. J. Physiol., Cell Physiol. 296: C1098-C1104.
2. Xi, Q., et al. 2010. Adenovirus-delivered microRNA targeting the vitamin D receptor reduces intracellular Ca^{2+} concentrations by regulating the expression of Ca-transport proteins in renal epithelial cells. BJU 107: 1314-1319.
3. Wilkens, M.R., et al. 2011. Gastrointestinal calcium absorption in sheep is mostly insensitive to an alimentary induced challenge of calcium homeostasis. Comp. Biochem. Physiol. B, Biochem. Mol. Biol. 158: 199-207.
4. Xi, Q.L., et al. 2011. Effect of silencing VDR gene in kidney on renal epithelial calcium transporter proteins and urinary calcium excretion in genetic hypercalciuric stone-forming rats. Urology 78: 1442.e1-1442.e7.
5. Sprekeler, N., et al. 2011. Expression patterns of intestinal calcium transport factors and *ex vivo* absorption of calcium in horses. BMC Vet. Res. 7: 65.
6. Muscher, A.S., et al. 2012. *Ex vivo* intestinal studies on calcium and phosphate transport in growing goats fed a reduced nitrogen diet. Br. J. Nutr. 108: 628-637.
7. Courjaret, R., et al. 2013. The *Xenopus* TRPV6 homolog encodes a Mg^{2+}-permeant channel that is inhibited by interaction with TRPC1. J. Cell. Physiol. 228: 2386-2398.

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.