SANTA CRUZ BIOTECHNOLOGY, INC.

TRPV5 (H-99): sc-30186

BACKGROUND

Transient receptor potential (TRP) proteins are cation-sensitive channels that modulate a myriad of cellular functions, including temperature sensation and vasoregulation Transcribed from a gene adjacent to VR-1, the thermal-sensitive, capsaicin-insensitive TRPV3 is expressed at warm temperatures; expression increases in response to noxious temperatures. Human TRPV3 is expressed in skin, tongue, dorsal root ganglion, trigeminal ganglion, spinal cord and brain. In addition, TRPV3 is co-expressed in dosal root ganglion neurons with VR-1. TRPV3 associates with VR-1 and may modulate VR-1 activity. The 729 amino acid TRPV5 (ECAC1) protein comprises six trans-membrane domains, multiple potential phosphorylation sites, an N-linked glycosylation site and three ankyrin repeat regions. It is abundantly expressed in kidney, jejunum and pancreas and at lower levels in testis, prostate, placenta, brain, colon and rectum. TRPV5 controls the rate-limiting step of vitamin D3-regulated Ca^{2+} reabsorption in kidney and intestine; the 5'-flanking region of TRPV5 contains four putative vitamin D3-responsive elements.

CHROMOSOMAL LOCATION

Genetic locus: TRPV5 (human) mapping to 7q31.1; Trpv5 (mouse) mapping to 6 B2.1.

SOURCE

TRPV5 (H-99) is a rabbit polyclonal antibody raised against amino acids 631-729 mapping at the C-terminus of TRPV5 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.

STORAGE

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

APPLICATIONS

TRPV5 (H-99) is recommended for detection of TRPV5 of human and, to a lesser extent, mouse and rat 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 TRPV5 siRNA (h): sc-42676, TRPV5 siRNA (m): sc-42677, TRPV5 shRNA Plasmid (h): sc-42676-SH, TRPV5 shRNA Plasmid (m): sc-42677-SH, TRPV5 shRNA (h) Lentiviral Particles: sc-42676-V and TRPV5 shRNA (m) Lentiviral Particles: sc-42677-V.

Molecular Weight of TRPV5 core: 75 kDa.

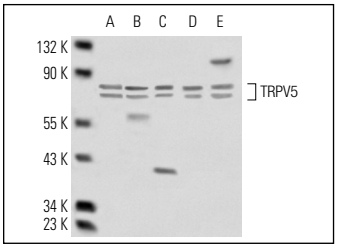
Molecular Weight of glycosylated TRPV5: 85-100 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, H4 cell lysate: sc-2408 or Hep G2 cell lysate: sc-2227.

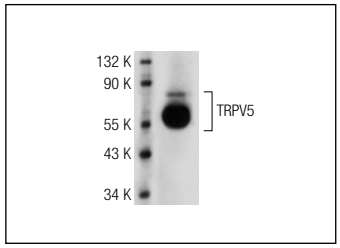
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecip-itation: 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.

DATA



TRPV5 (H-99): sc-30186. Western blot analysis of TRPV5 expression in Caki-1 (**A**), Hep G2 (**B**), H4 (**C**), MG-63 (**D**) and HOS (**E**) whole cell lysates.



TRPV5 (H-99): sc-30186. Western blot analysis of TRPV5 expression in mouse liver tissue extract.

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.

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.