SANTA CRUZ BIOTECHNOLOGY, INC.

TRPC6 (S-20): sc-19196

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transient receptor potential cation (TRPC) channels are a superfamily of six transmembrane segment-spanning, gated cation channels. TRPC subtypes mediate store-operated Ca^{2+} entry, a process involving Ca^{2+} influx and replenishment of Ca^{2+} stores formerly emptied through the action of inositol 1,4,5-trisphosphate production and other Ca^{2+} mobilizing agents. TRPC ion channels influence calcium-depletion induced calcium influx processes in response to chemo-, mechano- and osmoregulatory events. Human TRPC6 protein is a 931 amino acid cation channel that is predominantly expressed in placenta, spleen, lung, small intestine and ovary. Activated by diacylglycerol (DAG), TRPC6 comprises the α1-adrenoceptor-activated Ca^{2+}-permeable cation channel. The gene encoding human TRPC6 maps to chromosome 11q22.1.

REFERENCES

1. Zhu, X., et al. 1995. Molecular cloning of a widely expressed human homologue for the *Drosophila* TRP gene. FEBS Lett. 373: 193-198.
2. Wes, P.D., et al. 1995. TRPC1, a human homolog of a *Drosophila* store-operated channel. Proc. Natl. Acad. Sci. USA 92: 9652-9666.

CHROMOSOMAL LOCATION

Genetic locus: TRPC6 (human) mapping to 11q22.1; Trpc6 (mouse) mapping to 9 A1.

SOURCE

TRPC6 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TRPC6 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-19196 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRPC6 (S-20) is recommended for detection of TRPC6 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

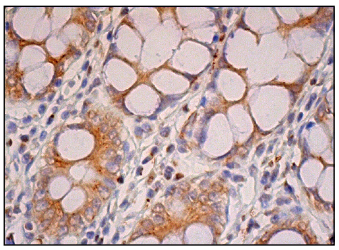
TRPC6 (S-20) is also recommended for detection of TRPC6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRPC6 siRNA (h): sc-42672, TRPC6 siRNA (m): sc-42673, TRPC6 shRNA Plasmid (h): sc-42672-SH, TRPC6 shRNA Plasmid (m): sc-42673-SH, TRPC6 shRNA (h) Lentiviral Particles: sc-42672-V and TRPC6 shRNA (m) Lentiviral Particles: sc-42673-V.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



TRPC6 (S-20): sc-19196. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Godin, N., et al. 2007. TRPC6 silencing in primary airway smooth muscle cells inhibits protein expression without affecting OAG-induced calcium entry. Mol. Cell. Biochem. 296: 193-201.
2. Bonéy-Montoya, J., et al. 2010. Long-range transcriptional control of progesterone receptor gene expression. Mol. Endocrinol. 24: 346-358.
3. Tang, C., et al. 2010. A role for receptor-operated Ca^{2+} entry in human pulmonary artery smooth muscle cells in response to hypoxia. Physiol. Res. 59: 909-918.
4. Kanswal, S., et al. 2011. Suppressive effect of bacterial polysaccharides on BAFF system is responsible for their poor immunogenicity. J. Immunol. 186: 2430-2443.
5. Dionisio, N., et al. 2011. Functional role of the calmodulin- and inositol 1,4,5-trisphosphate receptor-binding (CIRB) site of TRPC6 in human platelet activation. Cell. Signal. 23: 1850-1856.

STORAGE

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

RESEARCH USE

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