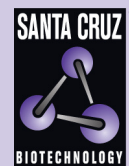


# TRPC6 (C-13): sc-19197



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  $\text{Ca}^{2+}$  entry, a process involving  $\text{Ca}^{2+}$  influx and replenishment of  $\text{Ca}^{2+}$  stores formerly emptied through the action of inositol 1,4,5-trisphosphate production and other  $\text{Ca}^{2+}$  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  $\alpha 1$ -adrenoceptor-activated  $\text{Ca}^{2+}$ -permeable cation channel. The gene encoding human TRPC6 maps to chromosome 11q22.1.

## REFERENCES

- Zhu, X., et al. 1995. Molecular cloning of a widely expressed human homologue for the *Drosophila* TRP gene. *FEBS Lett.* 373: 193-198.
- Wes, P.D., et al. 1995. TRPC1, a human homologue 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 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TRPC6 of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19197 P, (100  $\mu\text{g}$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TRPC6 (C-13) 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), immunoprecipitation [1-2  $\mu\text{g}$  per 100-500  $\mu\text{g}$  of total protein (1 ml of cell lysate)], 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 (C-13) is also recommended for detection of TRPC6 in additional species, including bovine.

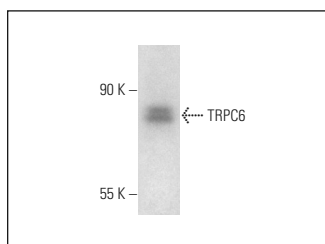
Suitable for use as control antibody for TRPC6 siRNA (h): sc-42672, TRPC6 siRNA (m): sc-42673, TRPC6 shRNA Plasmid (h): sc-42672-SH, TRPC6 shRNA Plasmid (m): sc-42673-SH, TRPC6 shRNA (h) Lentiviral Particles: sc-42672-V and TRPC6 shRNA (m) Lentiviral Particles: sc-42673-V.

Positive Controls: mouse brain extract: sc-2253.

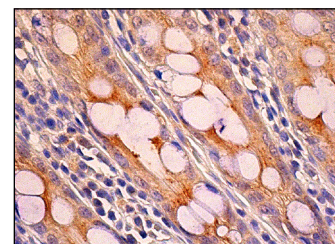
## RECOMMENDED SECONDARY REAGENTS

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

## DATA



TRPC6 (C-13): sc-19197. Western blot analysis of TRPC6 expression in mouse brain tissue extract.



TRPC6 (C-13): sc-19197. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Rampino, T., et al. 2007. KCNA1 and TRPC6 ion channels and NHE1 exchanger operate the biological outcome of HGF/scatter factor in renal tubular cells. *Growth Factors* 25: 382-391.
- Meng, F., et al. 2008. Role of TRP channels and NCX in mediating hypoxia-induced  $[\text{Ca}^{2+}]_i$  elevation in PC12 cells. *Respir. Physiol. Neurobiol.* 164: 386-393.
- Woelfle, U., et al. 2010. Triterpenes promote keratinocyte differentiation *in vitro*, *ex vivo* and *in vivo*: a role for the transient receptor potential canonical (subtype) 6. *J. Invest. Dermatol.* 130: 113-123.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.