

LTRPC7 (L-18): sc-31381

BACKGROUND

Transient receptor potential (TRPC) ion channels are a super-family 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. Trp ion channels influence calcium-depletion-induced calcium influx processes in response to chemo-, mechano- and osmo-regulatory events. LTRPC7 and LTRPC2 (TRPC7) are both members of the long TRPC subfamily, which is characterized by open reading frames of around 1600 amino-acid residues. LTRPC7 is another divalent cation channel for Ca^{2+} and Mg^{2+} .

REFERENCES

1. Philipp, S., et al. 1998. A novel capacitative calcium entry channel expressed in excitable cells. *EMBO J.* 17: 4274-4282.
2. Nagamine, K., et al. 1998. Molecular cloning of a novel putative Ca^{2+} channel protein (TRPC7) highly expressed in brain. *Genomics* 54: 124-131.

CHROMOSOMAL LOCATION

Genetic locus: TRPM7 (human) mapping to 15q21.2; Trpm7 (mouse) mapping to 2 F1.

SOURCE

LTRPC7 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LTRPC7 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31381 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LTRPC7 (L-18) is recommended for detection of LTRPC7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

LTRPC7 (L-18) is also recommended for detection of LTRPC7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LTRPC7 siRNA (h): sc-42662, LTRPC7 siRNA (m): sc-42663, LTRPC7 shRNA Plasmid (h): sc-42662-SH, LTRPC7 shRNA Plasmid (m): sc-42663-SH, LTRPC7 shRNA (h) Lentiviral Particles: sc-42662-V and LTRPC7 shRNA (m) Lentiviral Particles: sc-42663-V.

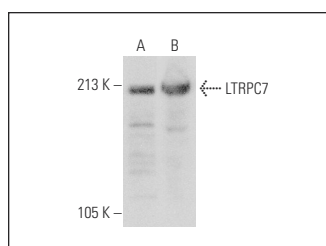
Molecular Weight of LTRPC7: 213 kDa.

Positive Controls: A549 cell lysate: sc-2413 or HEK293 whole cell lysate: sc-45136.

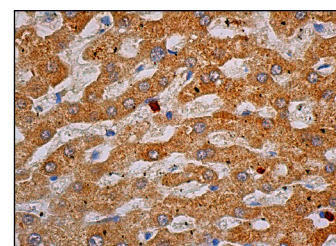
RECOMMENDED SECONDARY REAGENTS

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



LTRPC7 (L-18): sc-31381. Western blot analysis of LTRPC7 expression in A549 (A) and HEK293 (B) whole cell lysates.



LTRPC7 (L-18): sc-31381. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **LTRPC7 (H-4): sc-271099**, our highly recommended monoclonal alternative to LTRPC7 (L-18).