

TRPC2 (T-14): sc-162356

BACKGROUND

TRPC2 (transient receptor potential cation channel, subfamily C, member 2), also known as *trp2*, *Trp2*, *mTrp2*, *TRPC2a*, *TRPC2b* or *smTRPC2*, is a 1,172 amino acid multi-pass membrane protein belonging to the transient receptor TRpC subfamily and the TRPC2 sub-subfamily. TRPC2 contains three ANK repeats and exists as four alternatively spliced isoforms. TRPC2 isoform 3 is ubiquitously expressed at low levels and isoform 4 is expressed exclusively in vomeronasal organ. Thought to form a receptor-activated non-selective calcium permeant cation channel, TRPC2 is suggested to be induced by the reduction of intracellular calcium stores. TRPC2 is operated by a phosphatidylinositol second messenger system that is activated by receptor tyrosine kinases or G protein-coupled receptors.

REFERENCES

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- Zhang, P., et al. 2010. Odors activate dual pathways, a TRPC2 and a AA-dependent pathway, in mouse vomeronasal neurons. *Am. J. Physiol., Cell Physiol.* 298: C1253-C1264.
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CHROMOSOMAL LOCATION

Genetic locus: *Trpc2* (mouse) mapping to 7 E3.

SOURCE

TRPC2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TRPC2 of mouse 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-162356 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRPC2 (T-14) is recommended for detection of TRPC2 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TRPC family members.

TRPC2 (T-14) is also recommended for detection of TRPC2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRPC2 siRNA (m): sc-154691, TRPC2 shRNA Plasmid (m): sc-154691-SH and TRPC2 shRNA (m) Lentiviral Particles: sc-154691-V.

Molecular Weight of TRPC2: 131 kDa.

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.

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.