

TRPV4 (C-15): sc-47525

BACKGROUND

The transient receptor potential (TRP) protein family consists of a diverse group of cation channels functioning in a variety of homeostatic and regulatory pathways. Four subfamilies exist, based on channel domain homology, not activating stimuli: C type (canonical or classical), V type (vanilloid receptor related), M type (melastatin related) and P type (PKD). TRPV4, also designated VRL-2, TRP12, VR-OAC and OTRPC4, belongs to the V type subfamily, and plays a role in systemic osmoregulation. TRPV4 is a calcium channel activated by various stimuli, including thermal stress, fatty acid metabolites and hypotonicity. TRPV4 is highly expressed in lung and kidney.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRPV4 (human) mapping to 12q24.11; Trpv4 (mouse) mapping to 5 F.

SOURCE

TRPV4 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TRPV4 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-47525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRPV4 (C-15) is recommended for detection of TRPV4 isoforms 1, 2 and 3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRPV4 (C-15) is also recommended for detection of TRPV4 isoforms 1, 2 and 3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TRPV4 siRNA (h): sc-61726, TRPV4 siRNA (m): sc-61727, TRPV4 shRNA Plasmid (h): sc-61726-SH, TRPV4 shRNA Plasmid (m): sc-61727-SH, TRPV4 shRNA (h) Lentiviral Particles: sc-61726-V and TRPV4 shRNA (m) Lentiviral Particles: sc-61727-V.

Molecular Weight of glycosylated TRPV4: 98-107 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.