

TPCN2 (D-14): sc-162344

BACKGROUND

Voltage-dependent calcium channels are essential for the release of neurotransmitters. TPCN2 (two pore segment channel 2), also known as TPC2 or SHEP10, is a 752 amino acid multi-pass membrane protein that belongs to the calcium channel α -1 subunit family. Existing as a dimer, TPCN2 is thought to function as one of the major voltage-gated Ca^{2+} channel (VDCC) across the plasma membrane, effectively mediating the uptake and release of neurotransmitters. Variations in the TPCN2 gene are associated with variation in skin/hair/eye pigmentation type 10 (SHEP10), a condition that affects hair, eye and skin pigmentation. The gene encoding TPCN2 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TPCN2 (human) mapping to 11q13.2.

SOURCE

TPCN2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TPCN2 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-162344 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TPCN2 (D-14) is recommended for detection of TPCN2 of 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).

Suitable for use as control antibody for TPCN2 siRNA (h): sc-96434, TPCN2 shRNA Plasmid (h): sc-96434-SH and TPCN2 shRNA (h) Lentiviral Particles: sc-96434-V.

Molecular Weight of TPCN2: 85 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.