SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM127 (E-20): sc-248868

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The target of rapamycin (TOR) proteins sense nutrients and control transcription and translation relevant to cell growth. By activating an array of anabolic processes, such as transcription, protein and ribosome synthesis, and inhibiting catabolic processes, such as autophagy and mRNA degradation, the TOR signaling network controls cell growth. TMEM127 (transmembrane protein 127) is a 238 amino acid multi-pass membrane protein regulates cell proliferation by acting as a negative regulator of the TOR signaling pathway. Overexpression of TMEM127 results in a reduction of cell proliferation whereas TMEM127 knockdown cells are larger and proliferate at higher rates, suggesting that it may function as a tumor suppressor. Loss of heterozygosity at the TMEM127 gene locus is associated with an increased susceptibility to pheochromocytoma, a chromaffin tissue tumor of the adrenal medulla that secretes catecholamines such as epinephrine and norepinephrine, therefore leading to symptoms such as tachycardia, sweating and hypertension.

REFERENCES

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

CHROMOSOMAL LOCATION

Genetic locus: TMEM127 (human) mapping to 2q11.2; Tmem127 (mouse) mapping to 2 F1.

SOURCE

TMEM127 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMEM127 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-248868 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM127 (E-20) is recommended for detection of TMEM127 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); non cross-reactive with other TMEM family members.

TMEM127 (E-20) is also recommended for detection of TMEM127 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for TMEM127 siRNA (h): sc-94461, TMEM127 siRNA (m): sc-154359, TMEM127 shRNA Plasmid (h): sc-94461-SH, TMEM127 shRNA Plasmid (m): sc-154359-SH, TMEM127 shRNA (h) Lentiviral Particles: sc-94461-V and TMEM127 shRNA (m) Lentiviral Particles: sc-154359-V.

Molecular Weight of TMEM127: 26 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.