

TMEM55B (S-17): sc-160875

BACKGROUND

TMEM55B (transmembrane protein 55B) is an 277 amino acid multi-pass membrane protein that is ubiquitously expressed and catalyzes the hydrolysis of the 4-position phosphate of phosphatidylinositol 4,5-bisphosphate. TMEM55B exists as three alternatively spliced variants and is encoded by a gene mapping to human chromosome 14. Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the Presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein Bcl-3 in the translocations found in a variety of B cell malignancies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TMEM55B (human) mapping to 14q11.2; Tmem55b (mouse) mapping to 14 C1.

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.

SOURCE

TMEM55B (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMEM55B 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-160875 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM55B (S-17) is recommended for detection of TMEM55B 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMEM family members.

TMEM55B (S-17) is also recommended for detection of TMEM55B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMEM55B siRNA (h): sc-92328, TMEM55B siRNA (m): sc-154480, TMEM55B shRNA Plasmid (h): sc-92328-SH, TMEM55B shRNA Plasmid (m): sc-154480-SH, TMEM55B shRNA (h) Lentiviral Particles: sc-92328-V and TMEM55B shRNA (m) Lentiviral Particles: sc-154480-V.

Molecular Weight of TMEM55B: 29 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) 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.

RESEARCH USE

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