

TMEM178 (L-12): sc-132477

BACKGROUND

Transmembrane protein 178 (TMEM 178) is a 297 amino acid protein that is localized to the membrane. TMEM178 is a multi-pass membrane protein with identified homologs in mouse, rat and *Xenopus*. Human TMEM178 contains a 25 amino acid signal peptide and a mature chain that spans amino acids 26 to 297. Two isoforms of TMEM178 exist as a result of alternative splicing events. TMEM178 is encoded by a gene that maps to chromosome 2. The second largest human chromosome, 2 consists of 237 million bases encoding over 1,400 genes and making up approximately 8% of the human genome. Interestingly, chromosome 2 contains what appears to be a vestigial second centromere and vestigial telomeres which gives credence to the hypothesis that human chromosome 2 is the result of an ancient fusion of two ancestral chromosomes seen in modern form today in apes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TMEM178 (human) mapping to 2p22.1; Tmem178 (mouse) mapping to 17 E3.

SOURCE

TMEM178 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TMEM178 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-132477 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM178 (L-12) is recommended for detection of TMEM178 isoform 1 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 TMEM178 isoform 2.

TMEM178 (L-12) is also recommended for detection of TMEM178 isoform 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMEM178 siRNA (h): sc-94578, TMEM178 siRNA (m): sc-154415, TMEM178 shRNA Plasmid (h): sc-94578-SH, TMEM178 shRNA Plasmid (m): sc-154415-SH, TMEM178 shRNA (h) Lentiviral Particles: sc-94578-V and TMEM178 shRNA (m) Lentiviral Particles: sc-154415-V.

Molecular Weight (predicted) of TMEM178: 33 kDa.

Molecular Weight (observed) of TMEM178: 24 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.