

TMEM132E (K-14): sc-244353

BACKGROUND

TMEM132E (transmembrane protein 132E) is a 984 amino acid single-pass type I membrane protein belonging to the TMEM132 family. Encoded by a gene that maps to human chromosome 17q12, TMEM132E is located in a region involved in a heterozygous deletion, which results in variable facial dysmorphism, mental retardation, developmental delay and an increase in neurofibromas. Chromosome 17 makes up over 2.5% of the human genome and contains about 81 million bases, which encode over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though it is specifically recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes. Chromosome 17 is also linked to neurofibromatosis, a condition characterized by neural and epidermal lesions and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

REFERENCES

1. Kehrer-Sawatzki, H., et al. 2003. Heterogeneity of breakpoints in non-LCR-mediated large constitutional deletions of the 17q11.2 NF1 tumour suppressor region. *J. Med. Genet.* 40: e116.
2. Welsch, M.J., et al. 2005. Birt-Hogg-Dubé Syndrome. *Int. J. Dermatol.* 44: 668-673.
3. Nusbaum, R., et al. 2006. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. *Breast Dis.* 27: 21-50.
4. Girirajan, S., et al. 2007. 17p11.2p12 triplication and del(17)q11.2q12 in a severely affected child with dup(17)p11.2p12 syndrome. *Clin. Genet.* 72: 47-58.

CHROMOSOMAL LOCATION

Genetic locus: TMEM132E (human) mapping to 17q12; Tmem132e (mouse) mapping to 11 C.

SOURCE

TMEM132E (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TMEM132E 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-244353 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TMEM132E (K-14) is recommended for detection of TMEM132E of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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.

TMEM132E (K-14) is also recommended for detection of TMEM132E in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TMEM132E siRNA (h): sc-93554, TMEM132E siRNA (m): sc-154368, TMEM132E shRNA Plasmid (h): sc-93554-SH, TMEM132E shRNA Plasmid (m): sc-154368-SH, TMEM132E shRNA (h) Lentiviral Particles: sc-93554-V and TMEM132E shRNA (m) Lentiviral Particles: sc-154368-V.

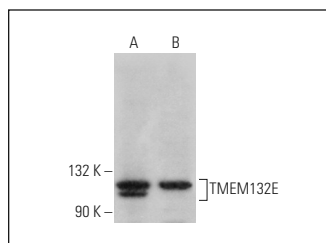
Molecular Weight of TMEM132E: 107 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or mouse testis extract: sc-2405.

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.

DATA



TMEM132E (K-14): sc-244353. Western blot analysis of TMEM132E expression in mouse testis tissue extract (A) and NIH/3T3 whole cell lysate (B).

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.