

TMEM157 (C-12): sc-137859

BACKGROUND

TMEM157 (transmembrane protein 157), also known as membrane protein FAM174A and hepatitis C virus NS5A-transactivated protein 6, is 190 amino acid protein encoded by a gene mapping to human chromosome 5. With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
3. Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. *Int. J. Colorectal Dis.* 16: 63-75.
4. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.
6. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. *Neuroscience* 145: 1300-1308.
7. Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. *Aging Cell* 6: 689-697.

CHROMOSOMAL LOCATION

Genetic locus: FAM174A (human) mapping to 5q21.1; Fam174a (mouse) mapping to 1 D.

SOURCE

TMEM157 (C-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TMEM157 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM157 (C-12) is recommended for detection of TMEM157 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMEM family members.

TMEM157 (C-12) is also recommended for detection of TMEM157 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMEM157 siRNA (h): sc-91598, TMEM157 siRNA (m): sc-154388, TMEM157 shRNA Plasmid (h): sc-91598-SH, TMEM157 shRNA Plasmid (m): sc-154388-SH, TMEM157 shRNA (h) Lentiviral Particles: sc-91598-V and TMEM157 shRNA (m) Lentiviral Particles: sc-154388-V.

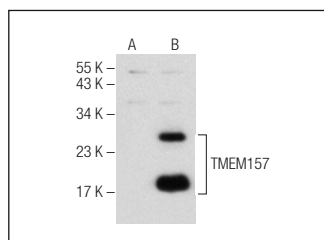
Molecular Weight of TMEM157: 20 kDa.

Positive Controls: TMEM157 (h): 293T Lysate: sc-113707.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TMEM157 (C-12): sc-137859. Western blot analysis of TMEM157 expression in non-transfected: sc-117752 (A) and human TMEM157 transfected: sc-113707 (B) 293T whole cell lysates.

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.