

# TMEM14C (Y-9): sc-139565

## BACKGROUND

Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6. The TMEM14C gene product has been provisionally designated TMEM14C pending further characterization.

## REFERENCES

- Mungall, A.J., Palmer, S.A., Sims, S.K., Edwards, C.A., Ashurst, J.L., Wilming, L., Jones, M.C., Horton, R., Hunt, S.E., Scott, C.E., Gilbert, J.G.R., Clamp, M.E., Bethel, G., Milne, S., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
- Vuoristo, M.M., Pappas, J.G., Jansen, V. and Ala-Kokko, L. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130: 160-164.
- McQueen, M.B., Devlin, B., Faraone, S.V., Nimgaonkar, V.L., Sklar, P., Smoller, J.W., Abou Jamra, R., Albus, M., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Batts, K.P. 2007. Iron overload syndromes and the liver. *Mod. Pathol.* 20 Suppl. 1: S31-S39.

## CHROMOSOMAL LOCATION

Genetic locus: TMEM14C (human) mapping to 6p24.2; Tmem14c (mouse) mapping to 13 A3.3.

## SOURCE

TMEM14C (Y-9) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TMEM14C 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-139565 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

TMEM14C (Y-9) is recommended for detection of TMEM14C 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 TMEM14 family members.

Suitable for use as control antibody for TMEM14C siRNA (h): sc-95427, TMEM14C siRNA (m): sc-154383, TMEM14C shRNA Plasmid (h): sc-95427-SH, TMEM14C shRNA Plasmid (m): sc-154383-SH, TMEM14C shRNA (h) Lentiviral Particles: sc-95427-V and TMEM14C shRNA (m) Lentiviral Particles: sc-154383-V.

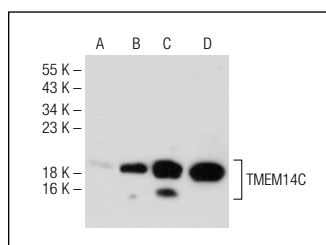
Molecular Weight of TMEM14C: 12 kDa.

Positive Controls: TMEM14C (m): 293T Lysate: sc-124123, SK-MEL-28 cell lysate: sc-2236 or ES-D3 whole cell lysate.

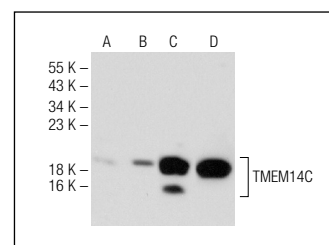
## RECOMMENDED SECONDARY REAGENTS

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



TMEM14C (Y-9): sc-139565. Western blot analysis of TMEM14C expression in non-transfected 293T: sc-117752 (A), human TMEM14C transfected 293T: sc-174406 (B), ES-D3 (C) and SK-MEL-28 (D) whole cell lysates.



TMEM14C (Y-9): sc-139565. Western blot analysis of TMEM14C expression in non-transfected 293T: sc-117752 (A), mouse TMEM14C transfected 293T: sc-124123 (B), ES-D3 (C) and SK-MEL-28 (D) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.