

# TMEM230 (G-2): sc-398561

## BACKGROUND

Representing about 2% of human DNA, chromosome 20 consists of approximately 63 million bases and 600 genes. Chromosome 20 contains a region with numerous genes expressed in the epididymis that are thought to be important for seminal production, while some are viewed as potential targets for male contraception. The PRNP gene encoding the prion protein associated with spongiform encephalopathies is found on chromosome 20. Amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome are also associated with chromosome 20.

## REFERENCES

1. Prusiner, S.B. 1998. The prion diseases. *Brain Pathol.* 8: 499-513.
2. Collins, S., et al. 2001. Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia and kuru: a review of these less common human transmissible spongiform encephalopathies. *J. Clin. Neurosci.* 8: 387-397.
3. Masullo, C. and Macchi, G. 2001. Does PRNP gene control the clinical and pathological phenotype of human spongiform transmissible encephalopathies? *Clin. Neuropathol.* 20: 19-25.
4. Joó, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
5. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
6. Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.
7. Kazantsev, A.G. 2007. Cellular pathways leading to neuronal dysfunction and degeneration. *Drug News Perspect.* 20: 501-509.
8. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.

## CHROMOSOMAL LOCATION

Genetic locus: TMEM230 (human) mapping to 20p13; Tmem230 (mouse) mapping to 2 F2.

## SOURCE

TMEM230 (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 16-41 within an internal region of TMEM230 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398561 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## RESEARCH USE

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

## APPLICATIONS

TMEM230 (G-2) is recommended for detection of TMEM230 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for TMEM230 siRNA (h): sc-72732, TMEM230 siRNA (m): sc-141870, TMEM230 shRNA Plasmid (h): sc-72732-SH, TMEM230 shRNA Plasmid (m): sc-141870-SH, TMEM230 shRNA (h) Lentiviral Particles: sc-72732-V and TMEM230 shRNA (m) Lentiviral Particles: sc-141870-V.

Molecular Weight (predicted) of TMEM230 isoforms: 13/20 kDa.

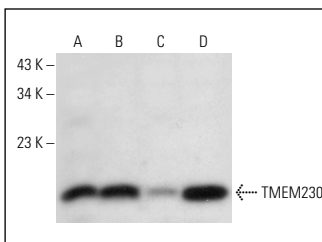
Molecular Weight (observed) of TMEM230: 16 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, Hep G2 cell lysate: sc-2227 or SK-MEL-28 cell lysate: sc-2236.

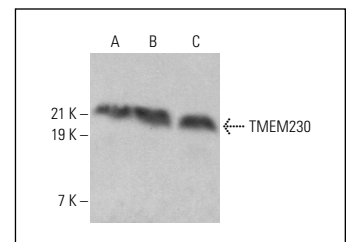
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



TMEM230 (G-2): sc-398561. Western blot analysis of TMEM230 expression in COLO 320DM (A), Hep G2 (B), HeLa (C) and SK-MEL-28 (D) whole cell lysates.



TMEM230 (G-2): sc-398561. Western blot analysis of TMEM230 expression in Hep G2 (A), Jurkat (B) and Caki-1 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Siedlak, S.L., et al. 2017. TMEM230 accumulation in granulovacuolar degeneration bodies and dystrophic neurites of Alzheimer's disease. *J. Alzheimers Dis.* 58: 1027-1033.

## STORAGE

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