

TMEM205 (m): 293T Lysate: sc-124148

BACKGROUND

Cisplatin is a potent platinum-based anti-neoplastic agent that is believed to form inter- and intrastrand DNA adducts that activate signaling pathways culminating in apoptosis. Cisplatin has been suggested to induce apoptosis through caspase-3 activation and XIAP expression. TMEM205 is a 189 amino acid transmembrane protein that is expressed in liver, pancreas, and adrenal glands. Elevated levels of Rab 8 and TMEM205 in cells may be associated with cisplatin resistance. TMEM205 is suggested to be a biomarker or target in cancer chemotherapy. TMEM205 is encoded by a gene located on human chromosome 19, which consist of around 63 million bases with over 1,400 genes, and makes up over 2% of human genomic DNA.

REFERENCES

- Huber, L.A., Dupree, P. and Dotti, C.G. 1995. A deficiency of the small GTPase rab8 inhibits membrane traffic in developing neurons. *Mol. Cell. Biol.* 15: 918-924.
- Siddik, Z.H. 2003. Cisplatin: mode of cytotoxic action and molecular basis of resistance. *Oncogene* 22: 7265-7279.
- Konkimalla, V.B., Kaina, B. and Efferth, T. 2008. Role of transporter genes in cisplatin resistance. *In Vivo* 22: 279-283.
- Shen, D.W., Ma, J., Okabe, M., Zhang, G., Xia, D. and Gottesman, M.M. 2010. Elevated expression of TMEM205, a hypothetical membrane protein, is associated with cisplatin resistance. *J. Cell. Physiol.* 225: 822-828.
- Shen, D.W. and Gottesman, M.M. 2012. RAB8 enhances TMEM205-mediated cisplatin resistance. *Pharm. Res.* 29: 643-650.
- Wang, Y., Yin, J.Y., Li, X.P., Chen, J., Qian, C.Y., Zheng, Y., Fu, Y.L., Chen, Z.Y., Zhou, H.H. and Liu, Z.Q. 2014. The association of transporter genes polymorphisms and lung cancer chemotherapy response. *PLoS ONE* 9: e91967.
- Dorr, C., Wu, B., Guan, W., Muthusamy, A., Sanghavi, K., Schladt, D.P., Maltzman, J.S., Scherer, S.E., Brott, M.J., Matas, A.J., Jacobson, P.A., Oetting, W.S. and Israni, A.K. 2015. Differentially expressed gene transcripts using RNA sequencing from the blood of immunosuppressed kidney allograft recipients. *PLoS ONE* 10: e0125045.

CHROMOSOMAL LOCATION

Genetic locus: Tmem205 (mouse) mapping to 9 A3.

PRODUCT

TMEM205 (m): 293T Lysate represents a lysate of mouse TMEM205 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

TMEM205 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TMEM205 antibodies. Recommended use: 10-20 µl per lane.

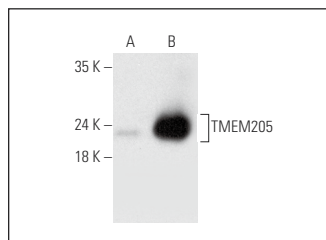
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TMEM205 (B-5): sc-514568 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TMEM205 expression in TMEM205 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

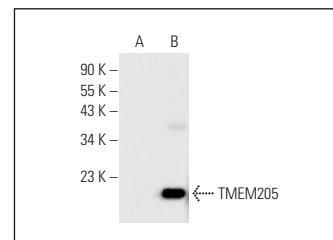
RECOMMENDED SUPPORT REAGENTS

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.

DATA



TMEM205 (B-5): sc-514568. Western blot analysis of TMEM205 expression in non-transfected: sc-117752 (A) and mouse TMEM205 transfected: sc-124148 (B) 293T whole cell lysates.



TMEM205 (G-1): sc-390447. Western blot analysis of TMEM205 expression in non-transfected: sc-117752 (A) and mouse TMEM205 transfected: sc-124148 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.