

RTP1 (m): 293T Lysate: sc-120650

BACKGROUND

Members of the RTP (receptor transporter proteins) family have recently been discovered to influence bitter taste receptor expression in addition to inducing the expression of mammalian odorant receptors. RTP1 (receptor (chemosensory) transporter protein 1), whose alternative names include MGC35450 or receptor-transporting protein 1, is a 263 amino acid single-pass type III membrane protein whose cell surface expression is dependent on olfactory receptor interaction. RTP1 belongs to the TMEM7 family, playing a role in both the function of odorant receptors and their translocation to the plasma membrane. RTP1 is found in olfactory and vomeronasal organs with low expression in brain. While RTP1 lacks a signal peptide it contains a C-terminal transmembrane domain. The gene encoding RTP1 maps to human chromosome 3q27.3.

REFERENCES

1. Saito, H., Kubota, M., Roberts, R.W., Chi, Q. and Matsunami, H. 2004. RTP family members induce functional expression of mammalian odorant receptors. *Cell* 119: 679-691.
2. Clark, A.J., Metherell, L.A., Cheetham, M.E. and Huebner, A. 2005. Inherited ACTH insensitivity illuminates the mechanisms of ACTH action. *Trends Endocrinol. Metab.* 16: 451-457.
3. Behrens, M., Bartelt, J., Reichling, C., Winnig, M., Kuhn, C. and Meyerhof, W. 2006. Members of RTP and REEP gene families influence functional bitter taste receptor expression. *J. Biol. Chem.* 281: 20650-20659.
4. Zhuang, H. and Matsunami, H. 2007. Synergism of accessory factors in functional expression of mammalian odorant receptors. *J. Biol. Chem.* 282: 15284-15293.
5. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 609137. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Grtp1 (mouse) mapping to 8 A1.1.

PRODUCT

RTP1 (m): 293T Lysate represents a lysate of mouse RTP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

RTP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RTP1 antibodies. Recommended use: 10-20 µl per lane.

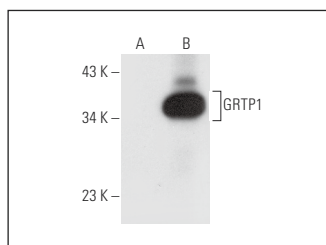
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GRTP1 (G-6): sc-398974 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse RTP1 expression in RTP1 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



GRTP1 (G-6): sc-398974. Western blot analysis of GRTP1 expression in non-transfected: sc-117752 (A) and mouse GRTP1 transfected: sc-120650 (B) 293T whole cell lysates.

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.

PROTOCOLS

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