

T2R38 (M-205): sc-67109

BACKGROUND

The sense of taste is essential for the survival of organisms. For example, the ability to identify sweet-tasting foods enables animals to seek out food with high nutritive value, whereas the ability to identify bitter substances enables them to avoid the ingestion of potentially harmful substances. A family of integral membrane proteins are involved in taste perception and include T1R, which is involved in sweet taste perception, and T2R, which is involved in bitter taste perception. Both types of taste receptors couple to various G proteins to initiate signal transduction cascades. Specifically, T2R38 is expressed in subsets of taste receptor cells of the tongue and exclusively in gustducin-positive cells. Variations in T2R38 are associated with the ability to taste the bitter chemical phenylthiocarbamide (PTC), also called thiourea tasting.

REFERENCES

- Margolskee, R.F. 2002. Molecular mechanisms of bitter and sweet taste transduction. *J. Biol. Chem.* 277: 1-4.
- Zhang, Y., Hoon, M.A., Chandrashekar, J., Mueller, K.L., Cook, B., Wu, D., Zuker, C.S. and Ryba, N.J. 2003. Coding of sweet, bitter and umami tastes: different receptor cells sharing similar signaling pathways. *Cell* 112: 293-301.
- Andres-Barquin, P.J. and Conte, C. 2004. Molecular basis of bitter taste: the T2R family of G protein-coupled receptors. *Cell. Biochem. Biophys.* 41: 99-112.
- Fischer, A., Gilad, Y., Man, O. and Pääbo, S. 2005. Evolution of bitter taste receptors in humans and apes. *Mol. Biol. Evol.* 22: 432-436.
- SWISS-PROT/TrEMBL (Q7TQA6). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: TAS2R38 (human) mapping to 7q34; Tas2r38 (mouse) mapping to 6 B1.

SOURCE

T2R38 (M-205) is a rabbit polyclonal antibody raised against amino acids 41-245 mapping within an internal region of T2R38 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

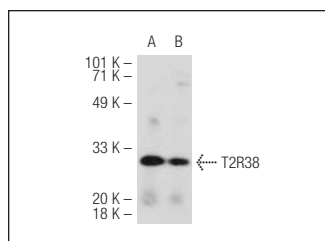
T2R38 (M-205) is recommended for detection of T2R38 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for T2R38 siRNA (m): sc-45340.

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



T2R38 (M-205): sc-67109. Western blot analysis of T2R38 expression in rat small intestine (A) and mouse small intestine (B) tissue extracts.

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.

PROTOCOLS

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