



T2R45 (Q-12): sc-34855

BACKGROUND

The sense of taste provides animals with valuable information about the quality and nutritional value of food. A family of G protein-coupled receptors are involved in taste perception and include T1R, which is involved in sweet and umami 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. Taste receptor type 2 member 45 (T2R45), also designated G protein-coupled receptor 59, is linked to gustducin and plays an important role in sensing the chemical composition of the content of the gastrointestinal tract. T2R45 stimulates α gustducin and mediates PLC- β -2. It is expressed in subsets of tongue taste receptor cells and in gustducin-positive cells.

REFERENCES

1. Margolskee, R.F., et al. 2002. Molecular mechanisms of bitter and sweet taste transduction. *J. Biol. Chem.* 277: 1-4.
2. Bufe, B., et al. 2002. The human TAS2R16 receptor mediates bitter taste in response to β -glucopyranosides. *Nat. Genet.* 32: 397-401.
3. Montmayeur, J.P., et al. 2002. Receptors for bitter and sweet taste. *Curr. Opin. Neurobiol.* 12: 366-371.
4. Zhang, Y., et al. 2003. Coding of sweet, bitter and umami tastes: different receptor cells sharing similar signaling pathways. *Cell* 112: 293-301.
5. Fischer, A., et al. 2005. Evolution of bitter taste receptors in humans and apes. *Mol. Biol. Evol.* 22: 432-436.
6. Lannoo, M.J., et al. 2005. Brain and sensory organ morphology in Antarctic eelpouts (*perciformes: Zoarcidae: lycodinae*). *J. Morphol.* 267: 115-127.
7. SWISS-PROT/TrEMBL (P59541). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: TAS2R43 (human) mapping to 12.

SOURCE

T2R45 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of T2R45 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34855 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

T2R45 (Q-12) is recommended for detection of T2R45, T2R46 and, to a lesser extent, T2R48, T2R47 and T2R44 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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