SANTA CRUZ BIOTECHNOLOGY, INC.

T2R31 (E-12): sc-169488

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The sense of taste has been classified to the five basic taste qualities: sweet, salty, sour, bitter and umami. Ubiquitous G protein-coupled family of receptors play a major role in taste perception. Members of the G protein-coupled family including T1R triggers sweet and umami taste perception whereas T2R triggers bitter taste perception. Both types of taste receptors couple to various G proteins to initiate signal transduction cascades. Single taste receptor cells express a variety of T2Rs, suggesting that each cell is capable of recognizing multiple tastants. T2R31 (taste receptor type 2 member 31), also known as TAS2R31, TAS2R44 or T2R53, is a 309 amino acid protein that belongs to the G protein-coupled receptor T2R family. Localized to the cell membrane of gustducin-positive cells, T2R31 is a gustducin-coupled receptor for denatonium and N_6-propyl-2-thiouracil and is involved in the perception of bitter compounds in the oral cavity and the gastrointestinal tract.

REFERENCES

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4. Ueda, T., Ugawa, S., Ishida, Y., Shibata, Y., Murakami, S. and Shimada, S. 2001. Identification of coding single-nucleotide polymorphisms in human taste receptor genes involving bitter tasting. Biochem. Biophys. Res. Commun. 285: 147-151.
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7. 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.
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STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Tas2r131 (mouse) mapping to 6 G1.

SOURCE

T2R31 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of T2R31 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.

Blocking peptide available for competition studies, sc-169488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

T2R31 (E-12) is recommended for detection of T2R31 of mouse 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); non cross-reactive with other T2R family members.

Suitable for use as control antibody for T2R31 siRNA (m): sc-154020, T2R31 shRNA Plasmid (m): sc-154020-SH and T2R31 shRNA (m) Lentiviral Particles: sc-154020-V.

Molecular Weight of T2R31: 35 kDa.

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.

RESEARCH USE

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