SANTA CRUZ BIOTECHNOLOGY, INC.

T2R60 (S-14): sc-169505

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

T2R60 (taste receptor type 2 member 60), also known as TAS2R60 or T2R56 (taste receptor type 2 member 56), is a 318 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor T2R family. T2R60 acts as a receptor that may play a role in the perception of bitterness, and is also thought to be involved in sensing the chemical composition of gastrointestinal content. As a gustducin-linked receptor, the activity of T2R60 may stimulate $G_{\alpha\ t}$(α gustducin), mediate PLC β2 activation and lead to the gating of TRPM5. While expressed in subsets of taste receptor cells of the tongue and palate epithelium, T2R60 is found exclusively in gustducin-positive cells. The gene that encodes T2R60 contains 957 bases and maps to human chromosome 7q35. Chromosome 7 houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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2. Montmayeur, J.P. and Matsunami, H. 2002. Receptors for bitter and sweet taste. Curr. Opin. Neurobiol. 12: 366-371.
3. Conte, C., et al. 2002. Identification and characterization of human taste receptor genes belonging to the TAS2R family. Cytogenet. Genome Res. 98: 45-53.
4. Margolskee, R.F. 2002. Molecular mechanisms of bitter and sweet taste transduction. J. Biol. Chem. 277: 1-4.
5. Zhang, Y., et al. 2003. Coding of sweet, bitter, and umami tastes: different receptor cells sharing similar signaling pathways. Cell 112: 293-301.
6. Shi, P., et al. 2003. Adaptive diversification of bitter taste receptor genes in mammalian evolution. Mol. Biol. Evol. 20: 805-814.
7. Go, Y., et al. 2005. Lineage-specific loss of function of bitter taste receptor genes in humans and nonhuman primates. Genetics 170: 313-326.
8. Fischer, A., et al. 2005. Evolution of bitter taste receptors in humans and apes. Mol. Biol. Evol. 22: 432-436.
9. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.

CHROMOSOMAL LOCATION

Genetic locus: Tas2r135 (mouse) mapping to 6 B2.1.

SOURCE

T2R60 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of T2R60 of mouse origin.

RESEARCH USE

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

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-169505 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

T2R60 (S-14) is recommended for detection of T2R60 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); non cross-reactive with other T2R family members.

Suitable for use as control antibody for T2R60 siRNA (m): sc-154027, T2R60 shRNA Plasmid (m): sc-154027-SH and T2R60 shRNA (m) Lentiviral Particles: sc-154027-V.

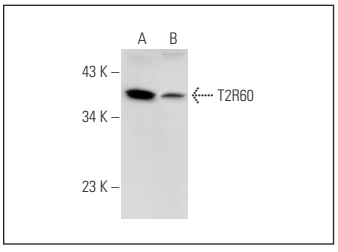
Molecular Weight of T2R60: 36 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or C6 whole cell lysate: sc-364373.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



T2R60 (S-14): sc-169505. Western blot analysis of T2R60 expression in NIH/3T3 (**A**) and C6 (**B**) whole cell lysates.

STORAGE

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