

T2R3 (E-13): sc-163425

BACKGROUND

Intron-less taste receptor genes encode for a family of seven-transmembrane receptor proteins, which function as bitter taste receptors. One such member is the T2R3 (taste receptor type 2 member 3), also known as TAS2R3, which is a 316 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor T2R family. Acting in the oral cavity and the gastrointestinal tract, T2R3 is a gustducin-coupled receptor that is implicated in the perception of bitter compounds. T2R3 mediates responses to certain taste through PLC β 2, a phospholipase C selectively expressed in taste tissue, and the calcium-regulated cation channel TRPM5. While expressed in subsets of taste receptor cells of the tongue and palate epithelium and exclusively in gustducin-positive cells, T2R3 is expressed in the antrum and fundus (part of the stomach), duodenum and in gastric endocrine cells. The gene that encodes T2R3 contains approximately 1,101 bases and maps to human chromosome 7q34.

REFERENCES

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- Chandrashekar, J., et al. 2000. T2Rs function as bitter taste receptors. *Cell* 100: 703-711.
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- Ueda, T., et al. 2001. Identification of coding single-nucleotide polymorphisms in human taste receptor genes involving bitter tasting. *Biochem. Biophys. Res. Commun.* 285: 147-151.
- Montmayeur, J.P., et al. 2002. Receptors for bitter and sweet taste. *Curr. Opin. Neurobiol.* 12: 366-371.
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CHROMOSOMAL LOCATION

Genetic locus: TAS2R3 (human) mapping to 7q34.

SOURCE

T2R3 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of T2R3 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-163425 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

T2R3 (E-13) is recommended for detection of T2R3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 T2R3 siRNA (h): sc-89478, T2R3 shRNA Plasmid (h): sc-89478-SH and T2R3 shRNA (h) Lentiviral Particles: sc-89478-V.

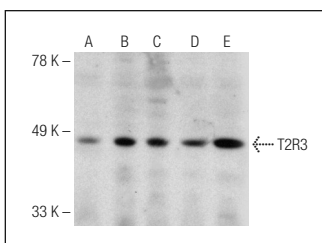
Molecular Weight of T2R3: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

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



T2R3 (E-13): sc-163425. Western blot analysis of T2R3 expression in SCC-25 (A), HeLa (B), Jurkat (C), A-431 (D) and A549 (E) 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.

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Try **T2R3 (E-12): sc-398489**, our highly recommended monoclonal alternative to T2R3 (E-13).