SANTA CRUZ BIOTECHNOLOGY, INC.

T2R16 (Y-12): sc-163424

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

T2R16 (taste receptor type 2 member 16), also known as TAS2R16, is a 291 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, T2R16 is a gustducin-coupled receptor that is implicated in the perception of bitter compounds. T2R16 mediates responses to certain taste through PLC β2, a phospholipase C selectively expressed in taste tissue, and the calcium-regulated cation channel TRPM5. Expressed in a subset of gustducin-positive taste receptor cells of the tongue and epithelia, T2R16 confers bitter perception of salicin to non-taster mice. The gene that encodes T2R16 consists of 996 bases and maps to human chromosome 7q31. 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. The Lys-172 polymorphism in T2R16 is associated with genetic susceptibility to alcoholism.

REFERENCES

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8. Fischer, A., et al. 2005. Evolution of bitter taste receptors in humans and apes. Mol. Biol. Evol. 22: 432-436.
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CHROMOSOMAL LOCATION

Genetic locus: Tas2r116 (mouse) mapping to 6 G1.

SOURCE

T2R16 (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of T2R16 of mouse origin.

STORAGE

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

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-163424 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

T2R16 (Y-12) is recommended for detection of T2R16 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.

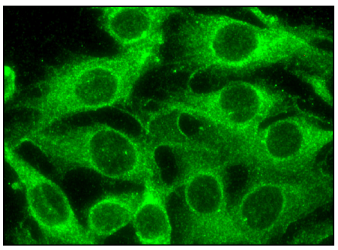
Suitable for use as control antibody for T2R16 siRNA (m): sc-154010, T2R16 shRNA Plasmid (m): sc-154010-SH and T2R16 shRNA (m) Lentiviral Particles: sc-154010-V.

Molecular Weight of T2R16: 34 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.

DATA



T2R16 (Y-12): sc-163424. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane and cytoplasmic localization.

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.