SANTA CRUZ BIOTECHNOLOGY, INC.

T2R07 (V-12): sc-139177

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. T2R07, also known as Tas2r107 (taste receptor, type 2, member 107), T2R4, mGR06 or T2r43, is a 308 amino acid murine protein that belongs to the G protein-coupled receptor family. Existing as a multi-pass membrane protein, T2R07 functions as a taste receptor that is thought to play a role in the perception of bitterness.

REFERENCES

1. Larhammar, D., et al. 1993. The receptor revolution—multiplicity of G-protein-coupled receptors. Drug Des. Discov. 9: 179-188.
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3. Schöneberg, T., et al. 1999. Structural basis of G protein-coupled receptor function. Mol. Cell. Endocrinol. 151: 181-193.
4. Adler, E., et al. 2000. A novel family of mammalian taste receptors. Cell 100: 693-702.
5. Matsunami, H., et al. 2000. A family of candidate taste receptors in human and mouse. Nature 404: 601-604.
6. Wu, S.V., et al. 2002. Expression of bitter taste receptors of the T2R family in the gastrointestinal tract and enteroendocrine STC-1 cells. Proc. Natl. Acad. Sci. USA 99: 2392-2397.
7. Shi, P., et al. 2003. Adaptive diversification of bitter taste receptor genes in Mammalian evolution. Mol. Biol. Evol. 20: 805-814.
8. Conte, C., et al. 2003. Evolutionary relationships of the Tas2r receptor gene families in mouse and human. Physiol. Genomics 14: 73-82.
9. Nelson, T.M., et al. 2005. Haplotypes at the Tas2r locus on distal chromosome 6 vary with quinine taste sensitivity in inbred mice. BMC Genet. 6: 32.

CHROMOSOMAL LOCATION

Genetic locus: Tas2r107 (mouse) mapping to 6 F3.

SOURCE

T2R07 (V-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of T2R07 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.

PROTOCOLS

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139177 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

T2R07 (V-12) is recommended for detection of T2R07 of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) 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 T2R07 siRNA (m): sc-154003, T2R07 shRNA Plasmid (m): sc-154003-SH and T2R07 shRNA (m) Lentiviral Particles: sc-154003-V.

Molecular Weight of T2R07: 35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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