SANTA CRUZ BIOTECHNOLOGY, INC.

# T2R46 (A-14): sc-34732

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The sense of taste provides animals with valuable information about the quality and nutritional value of food. A family of G protein-coupled receptors are involved in taste perception and include T1R, which is involved in sweet and umami taste perception, and T2R, which is involved in bitter taste perception. The molecular events in the perception of bitter taste are believed to start with the binding of specific water-soluble molecules to G protein-coupled receptors encoded by the TAS2R/T2R family of taste receptor genes. These receptors are expressed at the surface of taste receptor cells and are coupled to G proteins to initiate signal transduction cascades. The T2R46 receptor may play a role in the perception of bitterness. It is gustducin-linked and may also play a role in sensing the chemical composition of the gastrointestinal content. The activity of this receptor may stimulate $\alpha$ gustducin, mediate PLC-$\beta$-2 activation and lead to the gating of TRPM5.

## REFERENCES


1. Conte, C., Ebeling, M., Marcuz, A., Nef, P. and Andres-Barquin, P.J. 2002. Identification and characterization of human taste receptor genes belonging to the TAS2R family. Cytogenet. Genome Res. 98: 45-53.
2. Conte, C., Ebeling, M., Marcuz, A., Nef, P. and Andres-Barquin, P.J. 2003. Evolutionary relationships of the TAS2R receptor gene families in mouse and human. Physiol. Genomics. 14: 73-82.
3. Ueda, T., Ugawa, S., Yamamura, H., Imaizumi, Y. and Shimada, S. 2003. Functional interaction between T2R taste receptors and G protein $\alpha$ subunits expressed in taste receptor cells. J. Neurosci. 23: 7376-7380.
4. Parry, C.M., Erkner, A. and le Coutre, J. 2004. Divergence of T2R chemosensory receptor families in humans, bonobos, and chimpanzees. Proc. Natl. Acad. Sci. USA 101: 14830-14834.
5. SWISS-PROT/TrEMBL (P59538). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html


## CHROMOSOMAL LOCATION

Genetic locus: TAS2R46 (human) mapping to 12p13.2.

## SOURCE

T2R46 (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of T2R46 of human 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-34732 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

T2R46 (A-14) is recommended for detection of T2R46 and, to a lesser extent, T2R47 and T2R43 of human 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).

Suitable for use as control antibody for T2R46 siRNA (h): sc-106592.

## 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.

## PROTOCOLS

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