

OR5T2 (N-11): sc-131028

BACKGROUND

Olfactory receptors are G protein-coupled receptors that localize to the cilia of olfactory sensory neurons where they display affinity for and bind to a variety of odor molecules. The genes encoding olfactory receptors comprise the largest family in the human genome. The binding of olfactory receptor proteins to odor molecules triggers a signal transduction that propagates nerve impulses throughout the body, ultimately leading to transmission of the signal to the brain and the subsequent perception of smell. OR5T2 (olfactory receptor 5T2), also known as OR11-177, is a 329 amino acid multi-pass membrane protein that functions as an odorant receptor and, like other members of the olfactory receptor family, binds specific odor molecules and participates in propagating the olfactory response.

REFERENCES

- Malnic, B., et al. 1999. Combinatorial receptor codes for odors. *Cell* 96: 713-723.
- Glusman, G., et al. 2000. The olfactory receptor gene superfamily: data mining, classification, and nomenclature. *Mamm. Genome* 11: 1016-1023.
- Hoppe, R., et al. 2003. Organization and evolutionary relatedness of OR37 olfactory receptor genes in mouse and human. *Genomics* 82: 355-364.
- Gaillard, I., et al. 2004. Olfactory receptors. *Cell. Mol. Life Sci.* 61: 456-469.
- Buck, L.B. 2004. Olfactory receptors and odor coding in mammals. *Nutr. Rev.* 62: S184-S188.
- Malnic, B., et al. 2004. The human olfactory receptor gene family. *Proc. Natl. Acad. Sci. USA* 101: 2584-2589.
- Khafizov, K., et al. 2007. Ligand specificity of odorant receptors. *J. Mol. Model.* 13: 401-409.
- Rinaldi, A. 2007. The scent of life. The exquisite complexity of the sense of smell in animals and humans. *EMBO Rep.* 8: 629-633.

CHROMOSOMAL LOCATION

Genetic locus: OR5T2 (human) mapping to 11q12.1.

SOURCE

OR5T2 (N-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of OR5T2 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-131028 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

OR5T2 (N-11) is recommended for detection of OR5T2 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); non cross-reactive with OR5 family members.

OR5T2 (N-11) is also recommended for detection of OR5T2 in additional species, including canine.

Suitable for use as control antibody for OR5T2 siRNA (h): sc-96499, OR5T2 shRNA Plasmid (h): sc-96499-SH and OR5T2 shRNA (h) Lentiviral Particles: sc-96499-V.

Molecular Weight of OR5T2: 37 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.