

OR2G3 (T-13): sc-104531

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. OR2G3 (olfactory receptor 2G3), also known as olfactory receptor OR1-33, is a 309 amino acid multi-pass membrane protein that functions as an odorant receptor and belongs to the G-protein coupled receptor 1 family. The gene encoding OR2G3 maps to human chromosome 1q44.

REFERENCES

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2. Fuchs, T., et al. 2002. DEFOG: a practical scheme for deciphering families of genes. *Genomics* 80: 295-302.
3. Gaillard, I., et al. 2004. Olfactory receptors. *Cell. Mol. Life Sci.* 61: 456-469.
4. Malnic, B., et al. 2004. The human olfactory receptor gene family. *Proc. Natl. Acad. Sci. USA* 101: 2584-2589.
5. Neuhaus, E.M., et al. 2006. A specific heat shock protein enhances the expression of mammalian olfactory receptor proteins. *Chem. Senses* 31: 445-452.
6. Mashukova, A., et al. 2006. β -arrestin-2-mediated internalization of mammalian odorant receptors. *J. Neurosci.* 26: 9902-9912.
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CHROMOSOMAL LOCATION

Genetic locus: OR2G3 (human) mapping to 1q44.

SOURCE

OR2G3 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of OR2G3 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-104531 P, (100 μ g 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

OR2G3 (T-13) is recommended for detection of OR2G3 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 OR2G3 siRNA (h): sc-88614, OR2G3 shRNA Plasmid (h): sc-88614-SH and OR2G3 shRNA (h) Lentiviral Particles: sc-88614-V.

Molecular Weight of OR2G3: 35 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.

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.