

OR10C1 (Y-13): sc-109974

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. OR10C1 (olfactory receptor 10C1), also known as Hs6M1-17 or olfactory receptor 10C2, is a 312 amino acid multi-pass membrane protein and odorant receptor belonging to the G-protein coupled receptor 1 family. The gene encoding OR10C1 maps to human chromosome 6p22.1 and contains a stop codon at Gln-55, leading to the formation of a pseudogene.

REFERENCES

1. Sullivan, S.L., et al. 1994. Odorant receptor diversity and patterned gene expression in the mammalian olfactory epithelium. *Prog. Clin. Biol. Res.* 390: 75-84.
2. Fuchs, T., et al. 2002. DEFOG: a practical scheme for deciphering families of genes. *Genomics* 80: 295-302.
3. Volz, A., et al. 2003. Complex transcription and splicing of odorant receptor genes. *J. Biol. Chem.* 278: 19691-19701.
4. Gaillard, I., et al. 2004. Olfactory receptors. *Cell. Mol. Life Sci.* 61: 456-469.
5. Hatt, H. 2004. Molecular and cellular basis of human olfaction. *Chem. Biodivers.* 1: 1857-1869.
6. Malnic, B., et al. 2004. The human olfactory receptor gene family. *Proc. Natl. Acad. Sci. USA* 101: 2584-2589.
7. Kato, A. and Touhara, K. 2009. Mammalian olfactory receptors: pharmacology, G protein coupling and desensitization. *Cell. Mol. Life Sci.* 66: 3743-3753.
8. Thompson, E.E., et al. 2010. Sequence variations at the human leukocyte antigen-linked olfactory receptor cluster do not influence female preferences for male odors. *Hum. Immunol.* 71: 100-103.

CHROMOSOMAL LOCATION

Genetic locus: OR10C1 (human) mapping to 6p22.1.

SOURCE

OR10C1 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of OR10C1 of human 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 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-109974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OR10C1 (Y-13) is recommended for detection of OR10C1 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 other OR10 family members.

OR10C1 (Y-13) is also recommended for detection of OR10C1 in additional species, including equine and canine.

Suitable for use as control antibody for OR10C1 siRNA (h): sc-95626, OR10C1 shRNA Plasmid (h): sc-95626-SH and OR10C1 shRNA (h) Lentiviral Particles: sc-95626-V.

Molecular Weight of OR10C1: 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.

RESEARCH USE

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