SANTA CRUZ BIOTECHNOLOGY, INC.

OR6N1 (C-14): sc-103719

BACKGROUND

Olfactory receptors function by associating with odorant molecules to launch a neuronal response that elicits the perception of smell. Olfactory receptor genes are unevenly dispersed among 51 loci on 21 human chromosomes, and are composed of 172 subfamilies. OR6N1 (olfactory receptor, family 6, subfamily N, member 1), also known as olfactory receptor OR1-22, is a 312 amino acid multi-pass membrane protein belonging to the G-protein coupled receptor 1 family. As the largest family in the genome, the G-protein coupled receptor 1 family originated from single coding-exon genes. Encoded by a gene that maps to human chromosome 1q23.1, OR6N1 functions as an odorant receptor. Like many hormone and neurotransmitter receptors, OR6N1 shares a 7-transmembrane domain structure and recognizes G protein-mediated transduction of odorant signals.

REFERENCES

1. Chess, A., et al. 1994. Allelic inactivation regulates olfactory receptor gene expression. Cell 78: 823-834.
2. Trask, B.J., et al. 1998. Members of the olfactory receptor gene family are contained in large blocks of DNA duplicated polymorphically near the ends of human chromosomes. Hum. Mol. Genet. 7: 13-26.
3. Rouquier, S., et al. 2000. The olfactory receptor gene repertoire in primates and mouse: evidence for reduction of the functional fraction in primates. Proc. Natl. Acad. Sci. USA 97: 2870-2874.
4. Giglio, S., et al. 2001. Olfactory receptor-gene clusters, genomic-inversion polymorphisms, and common chromosome rearrangements. Am. J. Hum. Genet. 68: 874-883.
5. Fuchs, T., et al. 2002. DEFOG: a practical scheme for deciphering families of genes. Genomics 80: 295-302.
6. Niimura, Y., et al. 2003. Evolution of olfactory receptor genes in the human genome. Proc. Natl. Acad. Sci. USA 100: 12235-12240.
7. Malnic, B., et al. 2004. The human olfactory receptor gene family. Proc. Natl. Acad. Sci. USA 101: 2584-2589.
8. SWISS-PROT/TrEMBL (Q8NGY5). World Wide Web URL: http://www.uniprot.org/uniprot/Q8NGY5

CHROMOSOMAL LOCATION

Genetic locus: OR6N1 (human) mapping to 1q23.1.

SOURCE

OR6N1 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of OR6N1 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-103719 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OR6N1 (C-14) is recommended for detection of OR6N1 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 family member OR6N2.

Suitable for use as control antibody for OR6N1 siRNA (h): sc-78567, OR6N1 shRNA Plasmid (h): sc-78567-SH and OR6N1 shRNA (h) Lentiviral Particles: sc-78567-V.

Molecular Weight of OR6N1: 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.

STORAGE

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

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.