SANTA CRUZ BIOTECHNOLOGY, INC.

OR13C8 (N-13): sc-109358

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. OR13C8 (olfactory receptor, family 13, subfamily C, member 8), also known as OR37H or OR9-10, is a 320 amino acid multi-pass membrane protein and odorant receptor belonging to the G protein-coupled receptor 1 family. The gene encoding OR13C8 maps to human chromosome 9q31.1.

REFERENCES

1. Parmentier, M., et al. 1992. Expression of members of the putative olfactory receptor gene family in mammalian germ cells. Nature 355: 453-455.
2. 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.
3. Lane, R.P., et al. 2001. Genomic analysis of orthologous mouse and human olfactory receptor loci. Proc. Natl. Acad. Sci. USA 98: 7390-7395.
4. Fuchs, T., et al. 2002. DEFOG: a practical scheme for deciphering families of genes. Genomics 80: 295-302.
5. Hoppe, R., et al. 2003. Organization and evolutionary relatedness of OR37 olfactory receptor genes in mouse and human. Genomics 82: 355-364.
6. Gaillard, I., et al. 2004. Olfactory receptors. Cell. Mol. Life Sci. 61: 456-469.
7. Hatt, H. 2004. Molecular and cellular basis of human olfaction. Chem. Biodivers. 1: 1857-1869.
8. Malnic, B., et al. 2004. The human olfactory receptor gene family. Proc. Natl. Acad. Sci. USA 101: 2584-2589.
9. Kato, A., et al. 2009. Mammalian olfactory receptors: pharmacology, G protein-coupling and desensitization. Cell. Mol. Life Sci. 66: 3743-3753.

CHROMOSOMAL LOCATION

Genetic locus: OR13C8 (human) mapping to 9q31.1.

SOURCE

OR13C8 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of OR13C8 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-109358 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OR13C8 (N-13) is recommended for detection of OR13C8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 OR13 family members.

Suitable for use as control antibody for OR13C8 siRNA (h): sc-92539, OR13C8 shRNA Plasmid (h): sc-92539-SH and OR13C8 shRNA (h) Lentiviral Particles: sc-92539-V.

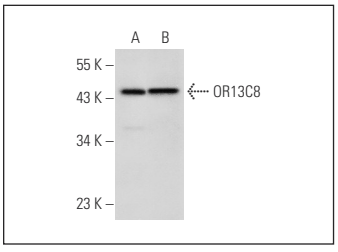
Molecular Weight of OR13C8: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

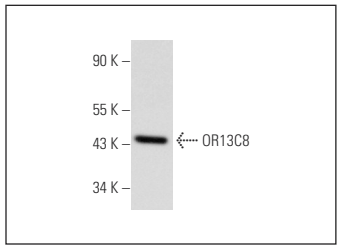
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



OR13C8 (N-13): sc-109358. Western blot analysis of OR13C8 expression in MCF7 (**A**) and Jurkat (**B**) whole cell lysates.



OR13C8 (N-13): sc-109358. Western blot analysis of OR13C8 expression in K-562 whole cell lysate.

RESEARCH USE

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