

# OR13C4 (Q-14): sc-132012

## 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. OR13C4 (olfactory receptor, family 13, subfamily C, member 4), also known as OR9-7, OR2K1, OR37F, HSHTPCR17 or HTPCR17, is a 318 amino acid multi-pass membrane protein and odorant receptor. The gene encoding OR13C4 maps to human chromosome 9q31.1.

## REFERENCES

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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.
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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: OR13C4 (human) mapping to 9q31.1.

## SOURCE

OR13C4 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of OR13C4 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-132012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

OR13C4 (Q-14) is recommended for detection of OR13C4 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 OR13 family members.

OR13C4 (Q-14) is also recommended for detection of OR13C4 in additional species, including equine.

Suitable for use as control antibody for OR13C4 siRNA (h): sc-92570, OR13C4 shRNA Plasmid (h): sc-92570-SH and OR13C4 shRNA (h) Lentiviral Particles: sc-92570-V.

Molecular Weight of OR13C4: 36 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.