

OR1J4 (C-12): sc-131214

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. OR1J4 (olfactory receptor 1J4), also known as olfactory receptor OR9-21 or HTPCRX01, is a 313 amino acid multi-pass membrane protein that functions as an odorant receptor and belongs to the G protein-coupled receptor 1 family.

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. 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: OR1J4 (human) mapping to 9q33.2.

SOURCE

OR1J4 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of OR1J4 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-131214 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

OR1J4 (C-12) is recommended for detection of OR1J4 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 OR1 family members.

Suitable for use as control antibody for OR1J4 siRNA (h): sc-92837, OR1J4 shRNA Plasmid (h): sc-92837-SH and OR1J4 shRNA (h) Lentiviral Particles: sc-92837-V.

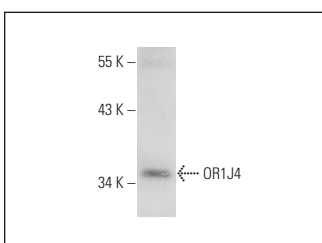
Molecular Weight of OR1J4: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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



OR1J4 (C-12): sc-131214. Western blot analysis of OR1J4 expression in Jurkat whole cell lysate.

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.