OR10W1 (C-13): sc-109609

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. OR10W1 (olfactory receptor 10W1) is a 305 amino acid protein. The gene encoding OR10W1 maps to human chromosome 11.

REFERENCES

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2. Glusman, G., Bahar, A., Sharon, D., Pilpel, Y., White, J. and Lancet, D. 2000. The olfactory receptor gene superfamily: data mining, classification, and nomenclature. Mamm. Genome 11: 1016-1023.

3. Gaillard, I., Rouquier, S. and Giorgi, D. 2004. Olfactory receptors. Cell. Mol. Life Sci. 61: 456-469.

4. Buck, L.B. 2004. Olfactory receptors and odor coding in mammals. Nutr. Rev. 62: S184-S188.

5. Malnic, B., Godfrey, P.A. and Buck, L.B. 2004. The human olfactory receptor gene family. Proc. Natl. Acad. Sci. USA 101: 2584-2589.

6. Khafizov, K., Anselmi, C., Menini, A. and Carloni, P. 2007. Ligand specificity of odorant receptors. J. Mol. Model. 13: 401-409.

7. Rinaldi, A. 2007. The scent of life. The exquisite complexity of the sense of smell in animals and humans. EMBO Rep. 8: 629-633.

CHROMOSOMAL LOCATION

Genetic locus: OR10W1 (human) mapping to 11q12.1.

SOURCE

OR10W1 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of OR10W1 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-109609 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

OR10W1 (C-13) is recommended for detection of OR10W1 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 OR10 family members.

OR10W1 (C-13) is also recommended for detection of OR10W1 in additional species, including canine.

Suitable for use as control antibody for OR10W1 siRNA (h): sc-96570, OR10W1 shRNA Plasmid (h): sc-96570-SH and OR10W1 shRNA (h) Lentiviral Particles: sc-96570-V.

Molecular Weight of OR10W1: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NCI-H292 whole cell lysate: sc-364179.

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
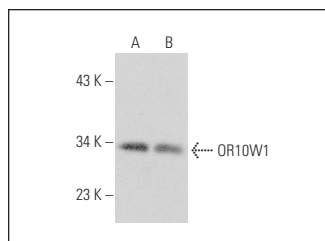
OR10W1 (C-13): sc-109609. Western blot analysis of OR10W1 expression in NCI-H292 (**A**) and HeLa (**B**) whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.