



OR2AG1/2 (L-12): sc-109994

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. OR2AG1 (olfactory receptor 2AG1), also known as olfactory receptor OR11-79, olfactory receptor 2AG3, HT3 or OR2AG3, and OR2AG2 (olfactory receptor 2AG2), also designated OR2AG2P, are multi-pass membrane proteins that function as odorant receptors. Both proteins contain 316 amino acids and belong to the G-protein coupled receptor 1 family.

REFERENCES

1. Lane, R.P., et al. 2001. Genomic analysis of orthologous mouse and human olfactory receptor loci. *Proc. Natl. Acad. Sci. USA* 98: 7390-7395.
2. Fuchs, T., et al. 2002. DEFOG: a practical scheme for deciphering families of genes. *Genomics* 80: 295-302.
3. Gaillard, I., et al. 2004. Olfactory receptors. *Cell. Mol. Life Sci.* 61: 456-469.
4. Malnic, B., et al. 2004. The human olfactory receptor gene family. *Proc. Natl. Acad. Sci. USA* 101: 2584-2589.
5. Neuhaus, E.M., et al. 2006. A specific heat shock protein enhances the expression of mammalian olfactory receptor proteins. *Chem. Senses* 31: 445-452.
6. Mashukova, A., et al. 2006. β -arrestin-2-mediated internalization of mammalian odorant receptors. *J. Neurosci.* 26: 9902-9912.
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CHROMOSOMAL LOCATION

Genetic locus: OR2AG1/OR2AG2 (human) mapping to 11p15.4.

SOURCE

OR2AG1/2 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of OR2AG1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109994 P, (100 μ g 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.

APPLICATIONS

OR2AG1/2 (L-12) is recommended for detection of OR2AG1 and OR2AG2 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 OR2 family members.

Molecular Weight of OR2AG1/2: 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.

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.