SANTA CRUZ BIOTECHNOLOGY, INC.

OR5H6 (N-12): sc-104008

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Olfactory receptors are G protein-coupled receptor proteins 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 cascade that leads to the production of cAMP via an olfactory-enriched adenylate cyclase. This event ultimately leads to transmission of action potentials to the brain and the subsequent perception of smell. OR5H6 (olfactory receptor 5H6), also known as olfactory receptor OR3-11, is a 325 amino acid multi-pass membrane protein that functions as an odorant receptor, effectively binding odor molecules and initiating the propagation of signals to the primary olfactory cortex. The gene encoding OR5H6 maps to human chromosome 3, which spans 200 million base pairs and encodes between 1,100 and 1,500 genes.

REFERENCES

1. Buck, L.B. 1993. Receptor diversity and spatial patterning in the mammalian olfactory system. Ciba Found. Symp. 179: 51-64.
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. Sullivan, S.L. and Dryer, L. 1996. Information processing in mammalian olfactory system. J. Neurobiol. 30: 20-36.
4. Touhara, K., et al. 1999. Functional identification and reconstitution of an odorant receptor in single olfactory neurons. Proc. Natl. Acad. Sci. USA 96: 4040-4045.
5. Kajiya, K., et al. 2001. Molecular bases of odor discrimination: reconstitution of olfactory receptors that recognize overlapping sets of odorants. J. Neurosci. 21: 6018-6025.
6. Touhara, K. 2001. Functional cloning and reconstitution of vertebrate odorant receptors. Life Sci. 68: 2199-2206.
7. Touhara, K. 2002. Odor discrimination by G protein-coupled olfactory receptors. Microsc. Res. Tech. 58: 135-141.
8. Malnic, B., et al. 2004. The human olfactory receptor gene family. Proc. Natl. Acad. Sci. USA 101: 2584-2589.

SOURCE

OR5H6 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of OR5H6 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-104008 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OR5H6 (N-12) is recommended for detection of OR5H6, OR5H1, OR5H14 and OR5H15 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); may cross-react with family members OR5AC2 or OR5H2.

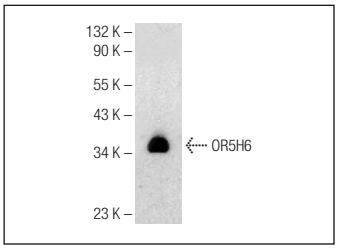
Molecular Weight of OR5H6: 37 kDa.

Positive Controls: human platelet extract: sc-363773.

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



OR5H6 (N-12): sc-104008. Western blot analysis of OR5H6 expression in human platelet extract.

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.

PROTOCOLS

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