SANTA CRUZ BIOTECHNOLOGY, INC.

Olfr30 (E-1): sc-515581

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. Olfr30 (olfactory receptor 30) is a 315 amino acid protein belonging to the G protein-coupled receptor 1 family. The gene encoding Olfr30 maps to mouse chromosome 11 B1.3.

REFERENCES

1. Nef, P., et al. 1992. Spatial pattern of receptor expression in the olfactory epithelium. Proc. Natl. Acad. Sci. USA 89: 8948-8952.
2. Young, J.M., et al. 2002. Different evolutionary processes shaped the mouse and human olfactory receptor gene families. Hum. Mol. Genet. 11: 535-546.
3. Zhang, X. and Firestein, S. 2002. The olfactory receptor gene superfamily of the mouse. Nat. Neurosci. 5: 124-133.
4. Young, J.M., et al. 2003. Odorant receptor expressed sequence tags demonstrate olfactory expression of over 400 genes, extensive alternate splicing and unequal expression levels. Genome Biol. 4: R71.
5. Strotmann, J., et al. 2004. Olfactory receptor proteins in axonal processes of chemosensory neurons. J. Neurosci. 24: 7754-7761.
6. Nguyen-Ba-Charvet, K.T., et al. 2008. Robos and slits control the path-finding and targeting of mouse olfactory sensory axons. J. Neurosci. 28: 4244-4249.

CHROMOSOMAL LOCATION

Genetic locus: Olfr30 (mouse) mapping to 11 B1.3.

SOURCE

Olfr30 (E-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-14 at the N-terminus of Olfr30 of mouse origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

Olfr30 (E-1) is recommended for detection of Olfr30 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Olfr30 siRNA (m): sc-150734, Olfr30 shRNA Plasmid (m): sc-150734-SH and Olfr30 shRNA (m) Lentiviral Particles: sc-150734-V.

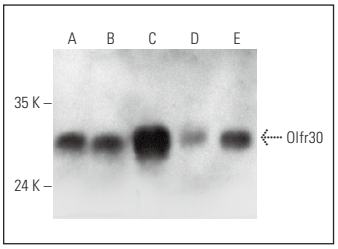
Molecular Weight of Olfr30: 40 kDa.

Positive Controls: F9 cell lysate: sc-2245, RAW 264.7 whole cell lysate: sc-2211 or mouse testis extract: sc-2405.

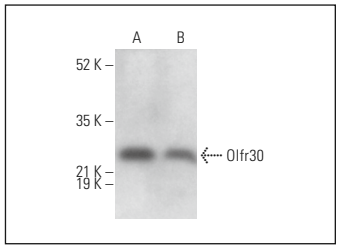
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Olfr30 (E-1): sc-515581. Western blot analysis of Olfr30 expression in F9 (**A**) and RAW 264.7 (**B**) whole cell lysates and mouse tongue (**C**), mouse testis (**D**) and rat testis (**E**) tissue extracts.



Olfr30 (E-1): sc-515581. Western blot analysis of Olfr30 expression in C2C12 (**A**) and WEHI-231 (**B**) whole cell lysates.

RESEARCH USE

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