# VN2R1P (N-16): sc-100238



The Power to Question

# **BACKGROUND**

G-protein-coupled receptors (GPCRs) are receptors for most hormones and neurotransmitters and therefore play a large role in mediating cellular events. The class III GPCR family are metabotropic receptors for glutamate,  $\gamma$ -aminobutyric acid (GABA), calcium, pheromones and certain gustatory stimulants. VN2R1P (Vomeronasal type-2 receptor-like), also known as putative calciumsensing receptor-like 1) is a 755 amino acid multi-pass membrane protein that belongs to the GCPR class III family. VN2R1P possibly plays a role in olfactory sensation, due to the fact that other members of the C family of GCPRs function in this way. By receiving chemosensory information from a wide spectrum of pheromonal and odorant cues, VN2 proteins may influence critical animal behavior such as reproduction, feeding and social interactions.

# **REFERENCES**

- Mombaerts, P. 1999. Seven-transmembrane proteins as odorant and chemosensory receptors. Science 286: 707-711.
- Parmentier, M.L., et al. 2002. A model for the functioning of family 3 GPCRs. Trends Pharmacol. Sci. 23: 268-274.
- Galvez, T., et al. 2003. How do G-protein-coupled receptors work? The case of metabotropic glutamate and GABA receptors. Med. Sci. 19: 559-565.
- Pin, J.P., et al. 2003. Evolution, structure, and activation mechanism of family 3/C G-protein-coupled receptors. Pharmacol. Ther. 98: 325-354.
- 5. Hashiguchi, Y., et al. 2005. Evolution of vomeronasal-type odorant receptor genes in the zebrafish genome. Gene 362: 19-28.
- 6. Alioto, T.S., et al. 2006. The repertoire of olfactory C family G protein-coupled receptors in zebrafish: candidate chemosensory receptors for amino acids. BMC Genomics 7: 309.
- Bräuner-Osborne, H., et al. 2007. Structure, pharmacology and therapeutic prospects of family C G-protein coupled receptors. Curr. Drug Targets 8: 169-184.
- Johnstone, K.A., et al. 2009. Genomic organization and evolution of the vomeronasal type 2 receptor-like (OIfC) gene clusters in Atlantic salmon, Salmo salar. Mol. Biol. Evol. 26: 1117-1125.

# CHROMOSOMAL LOCATION

Genetic locus: VN2R1P (human) mapping to 3q25.31.

# **SOURCE**

VN2R1P (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of VN2R1P of human origin.

# **PRODUCT**

Each vial contains 100  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100238 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

VN2R1P (N-16) is recommended for detection of VN2R1P 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).

Suitable for use as control antibody for VN2R1P siRNA (h): sc-78095, VN2R1P shRNA Plasmid (h): sc-78095-SH and VN2R1P shRNA (h) Lentiviral Particles: sc-78095-V.

Molecular Weight of VN2R1P: 84 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# **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.

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