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V1RC15 siRNA (m): sc-154989

BACKGROUND

In vertebrates, volatile odorants are detected by sensory neurons of the main olfactory epithelium (MOE), which perceive smell. In addition to the MOE, many vertebrates possess a vomeronasal organ (VNO), which detects pheromones. Pheromones elicit specific behavioral and physiological responses, including mating and dominance status, among recipients of the same species. A family of receptors that detect pheromones are designated the vomeronasal organ receptors or commonly known as the pheromone receptors. They include three subfamilies, V1R, V2R and V3R, each of which are comprised of potentially 100 or more family members, including several nonfunctional pseudogenes. These receptors have thus far been characterized in mouse and rat, but functional vomeronasal receptors have yet to be identified in human. The vomeronasal receptors encode seven transmembrane, G protein-coupled receptors that activate G_i and G_o and are expressed in a subset of neurons of the vomeronasal organ. V1RC15 (vomeronasal 1 receptor, C15), also known as Vmn1r32, is a 302 amino acid protein that is encoded by a gene located on mouse chromosome 6 C1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Vmn1r32 (mouse) mapping to 6 C1.

RESEARCH USE

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

PRODUCT

V1RC15 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see V1RC15 shRNA Plasmid (m): sc-154989-SH and V1RC15 shRNA (m) Lentiviral Particles: sc-154989-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

V1RC15 siRNA (m) is recommended for the inhibition of V1RC15 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor V1RC15 gene expression knockdown using RT-PCR Primer: V1RC15 (m)-PR: sc-154989-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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