

Vmn1r34 siRNA (m): sc-143742

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. Vmn1r34, also known as EG546901 or Gm5991, is a 309 amino acid protein which belongs to the superfamily of V1R vomeronasal receptors.

REFERENCES

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3. Giorgi, D., Friedman, C., Trask, B.J. and Rouquier, S. 2000. Characterization of nonfunctional V1R-like pheromone receptor sequences in human. *Genome Res.* 10: 1979-1985.
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7. Rodriguez, I., Del Punta, K., Rothman, A., Ishii, T. and Mombaerts, P. 2002. Multiple new and isolated families within the mouse superfamily of V1r vomeronasal receptors. *Nat. Neurosci.* 5: 134-140.

CHROMOSOMAL LOCATION

Genetic locus: Vmn1r34 (mouse) mapping to 6 C1.

PRODUCT

Vmn1r34 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 Vmn1r34 shRNA Plasmid (m): sc-143742-SH and Vmn1r34 shRNA (m) Lentiviral Particles: sc-143742-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

Vmn1r34 siRNA (m) is recommended for the inhibition of Vmn1r34 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 Vmn1r34 gene expression knockdown using RT-PCR Primer: Vmn1r34 (m)-PR: sc-143742-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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

PROTOCOLS

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