SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

Olfr777 siRNA (m): sc-151124

BACKGROUND

Olfr777 (Or6c207, olfactory receptor family 6 subfamily C member 207, MOR114-9) is an olfactory receptor. Olfactory receptor (OR) (odorant receptor, chemoreceptor) genes are the largest in number (~900 genes in human/~1500 in mouse) of the vertebrate G protein-coupled receptor (GPCR) superfamily, responsible for programming the ability to sense chemical environments. Olfactory receptors bind odorant molecules, and initiate a neuronal response as perception of smell, or chemotaxis (sperm-oocyte). Olfactory receptor protein expression is abundant within cilia and along synapses of olfactory sensory neurons, and to extent within airway epithelium. Olfactory receptors activate an array of intracellular G protein (Golf and/or Gs), adenylate cyclase, and ATP to cyclic AMP (cAMP) cascades. cAMP modulates calcium, and sodium flux through gated ion channels, thereby depolarizing and triggering ion gradient-dependent action potentials into and through the brain. The olfactory bulb neural macro-structure of the vertebrate forebrain is responsible for olfaction, the sense of smell. Sensory smell processing within the olfactory bulb initiates at spherical shaped "glomerulus" sub-structures where OR expressing, smell sensing chemical synapses form. These glomeruli networks of OR expressing peripheral sensory neurons, transmit receptor-specific activity to central neurons.

REFERENCES

1. Young, J.M., et al. 2002. Different evolutionary processes shaped the mouse and human olfactory receptor gene families. Hum. Mol. Genet. 11: 535-546.
2. Gu, X., et al. 2014. Chemosensory functions for pulmonary neuroendocrine cells. Am. J. Respir. Cell Mol. Biol. 50: 637-646.
3. Milardi, D., et al. 2018. Olfactory eeceptors in semen and in the male tract: from proteome to proteins. Front. Endocrinol. 8: 379.
4. Yasi, E.A., et al. 2019. Rapid deorphanization of human olfactory receptors in yeast. Biochemistry 58: 2160-2166.
5. Olender, T., et al. 2020. A unified nomenclature for vertebrate olfactory receptors. BMC Evol. Biol. 20: 42.
6. Zhu, K.W., et al. 2022. Decoding the olfactory map through targeted transcriptomics links murine olfactory receptors to glomeruli. Nat. Commun. 13: 5137.

CHROMOSOMAL LOCATION

Genetic locus: Olfr777 (mouse) mapping to 10 D3.

PRODUCT

Olfr777 siRNA (m) is a pool of 2 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Olfr777 shRNA Plasmid (m): sc-151124-SH and Olfr777 shRNA (m) Lentiviral Particles: sc-151124-V as alternate gene silencing products.

For independent verification of Olfr777 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-151124A and sc-151124B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Olfr777 siRNA (m) is recommended for the inhibition of Olfr777 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 µM in 66 µl. 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 Olfr777 gene expression knockdown using RT-PCR Primer: Olfr777 (m)-PR: sc-151124-PR (20 µl). 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.