



TAAR9 siRNA (h): sc-106594

BACKGROUND

Trace amines are endogenous molecules structurally related to classical biogenic amines that are linked to psychiatric conditions. TAAR9 belongs to a family of G protein-coupled receptors, referred to as trace-amine-associated receptors (TAAR), which are activated by trace amines and are present in very low levels in mammalian tissue. TAARs contain several structural features that are similar to the rhodopsin β -adrenergic receptor superfamily, including the positions of the seven transmembrane regions that provide common ligand-binding pockets as well as the short N- and C-terminal domains. TAAR proteins are potential targets for studying amine-containing drugs of abuse, such as amphetamines and MDMA, as well as neuropsychiatric disorders including schizophrenia, depression, and attention deficit disorder.

REFERENCES

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3. Lee, D.K., et al. 2000. Cloning and characterization of additional members of the G protein-coupled receptor family. *Biochim. Biophys. Acta* 1490: 311-323.
4. Lee, S.P., et al. 2000. Inhibition of cell surface expression by mutant receptors demonstrates that D2 dopamine receptors exist as oligomers in the cell. *Mol. Pharmacol.* 58: 120-128.
5. Nabbout, R., et al. 2002. A locus for simple pure febrile seizures maps to chromosome 6q22-q24. *Brain* 125: 2668-2680.
6. Duan, J., et al. 2004. Polymorphisms in the trace amine receptor 4 (TRAR4) gene on chromosome 6q23.2 are associated with susceptibility to schizophrenia. *Am. J. Hum. Genet.* 75: 624-638.
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CHROMOSOMAL LOCATION

Genetic locus: TAAR9 (human) mapping to 6q23.2.

PRODUCT

TAAR9 siRNA (h) is a pool of 3 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TAAR9 shRNA Plasmid (h): sc-106594-SH and TAAR9 shRNA (h) Lentiviral Particles: sc-106594-V as alternate gene silencing products.

For independent verification of TAAR9 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-106594A, sc-106594B and sc-106594C.

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

TAAR9 siRNA (h) is recommended for the inhibition of TAAR9 expression in human 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 TAAR9 gene expression knockdown using RT-PCR Primer: TAAR9 (h)-PR: sc-106594-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.