

# HAAO siRNA (m): sc-145886

## BACKGROUND

The 3-HAO family of proteins consists of intramolecular dioxygenases that contain non-heme ferrous iron. HAAO (3-hydroxyanthranilate 3,4-dioxygenase), also known as HAO or 3-HAO, is a 286 amino acid monomeric cytoplasmic protein that belongs to the 3-HAO family. Utilizing Fe<sup>2+</sup> ions as a cofactor, HAAO participates in the formation of quinolinic acid (QUIN), and excitotoxin, by catalyzing the oxidative ring opening of 3-hydroxyanthranilate to 2-amino-3-carboxymuconate semialdehyde. HAAO may play a role in disorders that are associated with varying levels of QUIN expression, and is widely expressed in peripheral organs, including kidney and liver. Existing as two alternatively spliced isoforms, the gene encoding HAAO maps to human chromosome 2p21 and mouse chromosome 17 E4.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: HaaO (mouse) mapping to 17 E4.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

HAAO 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HAAO shRNA Plasmid (m): sc-145886-SH and HAAO shRNA (m) Lentiviral Particles: sc-145886-V as alternate gene silencing products.

For independent verification of HAAO (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-145886A and sc-145886B.

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

## APPLICATIONS

HAAO siRNA (m) is recommended for the inhibition of HAAO 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  $\mu$ M in 66  $\mu$ 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 HAAO gene expression knockdown using RT-PCR Primer: HAAO (m)-PR: sc-145886-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.