SANTA CRUZ BIOTECHNOLOGY, INC.

FAAH2 siRNA (h): sc-90903

BACKGROUND

FAAH2 (fatty-acid amide hydrolase 2), also known as amidase domain-containing protein, anandamide amidohydrolase 2 or oleamide hydrolase 2, is a 532 amino acid single-pass membrane protein. Belonging to the amidase family, FAAH2 is highly expressed in brain, small intestine and testis, with lower levels of expression found in heart, kidney, liver, lung and prostate. FAAH2 preferentially hydrolyzes monounsaturated anandamines as opposed to polyunsaturated substrates, and degrades bioactive fatty acid amides, such as oleamide and endogenous cannabinoid, to their corresponding acids, which ends the signaling functions of these molecules. Existing as a homodimer, FAAH2 is inhibited by O-aryl carbamates and α-keto heterocytes. The gene encoding FAAH2 maps to human chromosome Xp11.1.

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CHROMOSOMAL LOCATION

Genetic locus: FAAH2 (human) mapping to Xp11.21.

PRODUCT

FAAH2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FAAH2 shRNA Plasmid (h): sc-90903-SH and FAAH2 shRNA (h) Lentiviral Particles: sc-90903-V as alternate gene silencing products.

For independent verification of FAAH2 (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-90903A, sc-90903B and sc-90903C.

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

FAAH2 siRNA (h) is recommended for the inhibition of FAAH2 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 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 FAAH2 gene expression knockdown using RT-PCR Primer: FAAH2 (h)-PR: sc-90903-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.