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QRFP siRNA (m): sc-152613

BACKGROUND

QRFP (pyroglutamylated RFamide peptide), also known as P518 or 26RFa, is a 136 amino acid secreted protein that is widely expressed in the brain with highest expression levels in the cerebellum, medulla, pituitary, retina, vestibular nucleus and white matter. Also expressed in the bladder, colon, coronary artery, parathyroid gland, prostate, testis and thyroid, QRFP is a member of the RFamide neuropeptide family. QRFP may be involved in aldosterone secretion by the adrenal gland and is also implicated in stimulating metabolic rate, locomotor activity and increasing blood pressure. Considered a ligand for the G protein-coupled receptor GPR103, QRFP may have orexigenic activity, thereby acting as an appetite stimulant. The gene encoding QRFP is located on human chromosome 9q34.12, which consists of about 145 million bases, comprises roughly 4% of the human genome and encodes nearly 900 genes.

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CHROMOSOMAL LOCATION

Genetic locus: *Qrfp* (mouse) mapping to 2 B.

PRODUCT

QRFP siRNA (m) 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 QRFP shRNA Plasmid (m): sc-152613-SH and QRFP shRNA (m) Lentiviral Particles: sc-152613-V as alternate gene silencing products.

For independent verification of QRFP (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-152613A, sc-152613B and sc-152613C.

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

QRFP siRNA (m) is recommended for the inhibition of QRFP 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 QRFP gene expression knockdown using RT-PCR Primer: QRFP (m)-PR: sc-152613-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.