SANTA CRUZ BIOTECHNOLOGY, INC.

CCK siRNA (m): sc-39497

BACKGROUND

CCK (cholecystokinin) is a 115 amino acid secreted protein belonging to the gastrin/cholecystokinin family. CCK has been shown to stimulate the growth of pancreatic cancer. As a peptide hormone, CCK induces gallbladder contraction and the release of pancreatic enzymes in the gut. Binding of CCK to CCK-A receptors stimulates amylase release from the pancreas, while binding to CCK-B receptors stimulates gastric acid secretion. The function of CCK in the brain is not clear. The CCK precursor is cleaved by proteases to produce a number of active cholecystokinins including CCK58, CCK58 desnonopeptide, CCK39, CCK33, CCK25, CCK18, CCK12, CCK8, CCK7 and CCK5. The gene encoding CCK maps to human chromosome 3p22.1 and mouse chromosome 9 F4.

REFERENCES

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3. Vishnuvardhan, D. and Beinfeld, M.C. 2000. Role of tyrosine sulfation and serine phosphorylation in the processing of procholecystokinin to amidated cholecystokinin and its secretion in transfected AtT-20 cells. Biochemistry 39: 13825-13830.
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6. Wang, J., et al. 2003. Cholecystokinin, cholecystokinin-A receptor and cholecystokinin-B receptor gene polymorphisms in Parkinson's disease. Pharmacogenetics 13: 365-369.
7. Jang, J.Y., et al. 2005. Presence of CCK-A, B receptors and effect of gastrin and cholecystokinin on growth of pancreatobiliary cancer cell lines. World J. Gastroenterol. 11: 803-809.
8. Lavine, J.A., et al. 2010. Cholecystokinin is up-regulated in obese mouse islets and expands β-cell mass by increasing β-cell survival. Endocrinology 151: 3577-3588.
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CHROMOSOMAL LOCATION

Genetic locus: Cck (mouse) mapping to 9 F4.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

CCK 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CCK shRNA Plasmid (m): sc-39497-SH and CCK shRNA (m) Lentiviral Particles: sc-39497-V as alternate gene silencing products.

For independent verification of CCK (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-39497A, sc-39497B and sc-39497C.

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

CCK siRNA (m) is recommended for the inhibition of CCK 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 CCK gene expression knockdown using RT-PCR Primer: CCK (m)-PR: sc-39497-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.