SANTA CRUZ BIOTECHNOLOGY, INC.

Gastrokine 2 siRNA (h): sc-94554

BACKGROUND

Gastrokine 2 (GKN2), also known as BLOT, GDDR or TFIZ1, is a 184 amino acid secreted protein that contains one BRICHOS domain. Expressed primarily in gastric mucosa, Gastrokine 2 interacts with SP (spasmolytic polypeptide) and forms a disulfide linked heterodimer with pS2. The gene encoding Gastrokine 2 maps to human chromosome 2p13.3. Chromosome 2, the second largest human chromosome, consists of 237 million bases encoding over 1,400 genes, comprising approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GKN2 (human) mapping to 2p13.3.

PRODUCT

Gastrokine 2 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 Gastrokine 2 shRNA Plasmid (h): sc-94554-SH and Gastrokine 2 shRNA (h) Lentiviral Particles: sc-94554-V as alternate gene silencing products.

For independent verification of Gastrokine 2 (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-94554A, sc-94554B and sc-94554C.

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

Gastrokine 2 siRNA (h) is recommended for the inhibition of Gastrokine 2 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 Gastrokine 2 gene expression knockdown using RT-PCR Primer: Gastrokine 2 (h)-PR: sc-94554-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Kim, O., Yoon, J.H., Choi, W.S., Ashktorab, H., Smoot, D.T., Nam, S.W., Lee, J.Y. and Park, W.S. 2017. Heterodimeric interaction between GKN2 and TFF1 entails synergistic antiproliferative and pro-apoptotic effects on gastric cancer cells. Gastric Cancer 20: 772-783.

RESEARCH USE

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