SANTA CRUZ BIOTECHNOLOGY, INC.

IGF2BP2 siRNA (m): sc-146180

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The Power to Question

BACKGROUND

IGF2BP2 (Insulin-like growth factor 2 mRNA binding protein 2) is also known as IGF2 mRNA-binding protein 2, IMP-2 (IGF-II mRNA-binding protein 2), VICKZ family member 2 or hepatocellular carcinoma autoantigen p62 and is a 556 amino acid protein. IGF2BP2 is expressed in a variety of tissues including heart, placenta, skeletal muscle, pancreas, fetal liver, lung, kidney, thymus and gonadal cells. IGF2BP2 is an RNA binding protein which may be involved in the regulation of mRNA translation and may also function to control the spatial localization of target mRNAs. Antibodies against IGF2BP2 have been detected in patients with HCC (hepatocellular carcinoma), suggesting that IGF2BP2 may have a role in the pathogenesis of HCC. Defects in IGF2BP2 are thought to be associated with susceptibility to type 2 diabetes mellitus.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Igf2bp2 (mouse) mapping to 16 B1.

PRODUCT

IGF2BP2 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 IGF2BP2 shRNA Plasmid (m): sc-146180-SH and IGF2BP2 shRNA (m) Lentiviral Particles: sc-146180-V as alternate gene silencing products.

For independent verification of IGF2BP2 (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-146180A, sc-146180B and sc-146180C.

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

IGF2BP2 siRNA (m) is recommended for the inhibition of IGF2BP2 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 IGF2BP2 gene expression knockdown using RT-PCR Primer: IGF2BP2 (m)-PR: sc-146180-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. Qian, B., Wang, P., Zhang, D. and Wu, L. 2021. m^{6}A modification promotes miR-133a repression during cardiac development and hypertrophy via IGF2BP2. Cell Death Discov. 7: 157.

RESEARCH USE

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