SANTA CRUZ BIOTECHNOLOGY, INC.

BONO1 siRNA (m): sc-141726

BACKGROUND

BONO1, also known as KAZALD1 (kazal-type serine protease inhibitor domain-containing protein 1), IGFBP-rP10, FKSG28 or FKSG40, is a 304 amino acid secreted extracellular matrix protein that promotes matrix assembly. BONO1 is expressed in developing bones and odontoblasts in teeth, where it plays a role in osteoblast proliferation during bone formation and regeneration. BONO1 is also expressed at high levels in spleen, and is found at lower levels in lung, skin, urinary bladder, brain, tongue, kidney and large intestine. Existing as two alternatively spliced isoforms, BONO1 contains one Kazal-like domain, an IGFBP N-terminal domain and a single Ig-like C2-type (immunoglobulin-like) domain. The gene encoding BONO1 maps to human chromosome 10q24.31, which contains over 800 genes and 135 million nucleotides. Cockayne syndrome, Cockayne syndrome and trisomy 10 are associated with defects in chromosome 10.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609208. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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5. Carter, M.T., et al. 2010. Distal trisomy 10q syndrome: phenotypic features in a child with inverted duplicated 10q25.1-q26.3. Clin. Dysmorphol. 19: 140-145.
6. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.
7. Yuan, J., et al. 2010. Isolated trisomy 10 in an infant with acute myeloid leukemia: a case report and review of literature. Int. J. Clin. Exp. Pathol. 3: 718-722.

CHROMOSOMAL LOCATION

Genetic locus: Kazald1 (mouse) mapping to 19 C3.

PRODUCT

BONO1 siRNA (m) is a pool of 2 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 BONO1 shRNA Plasmid (m): sc-141726-SH and BONO1 shRNA (m) Lentiviral Particles: sc-141726-V as alternate gene silencing products.

For independent verification of BONO1 (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-141726A and sc-141726B.

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

BONO1 siRNA (m) is recommended for the inhibition of BONO1 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 BONO1 gene expression knockdown using RT-PCR Primer: BONO1 (m)-PR: sc-141726-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.