SANTA CRUZ BIOTECHNOLOGY, INC.

Bles03 siRNA (m): sc-141710

BACKGROUND

Bles03 (basophilic leukemia expressed protein BLES03), also known as P5326, is a 251 amino acid protein belonging to the UPF0696 family that has a similar structure to that of eIF4E (eukaryotic initiation factor 4E), a protein that recognizes and binds the 7-methylguanosine-containing mRNA cap during an early step in the initiation of protein synthesis and facilitates ribosome binding by inducing the unwinding of the mRNAs secondary structures. The gene encoding Bles03 is located on human chromosome 11q13.1, in between genes encoding the proteins NC2α and Fra-1, both of which are involved in transcription initiation, thereby suggesting that Bles03 itself may be involved in a biochemical process that requires recognition of nucleic acids.

REFERENCES

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2. Whalen, S.G., et al. 1996. Phosphorylation of eIF-4E on serine 209 by protein kinase C is inhibited by the translational repressors, 4E-binding proteins. J. Biol. Chem. 271: 11831-11837.
3. Geisberg, J.V., et al. 2001. Yeast NC2 associates with the RNA polymerase II preinitiation complex and selectively affects transcription *in vivo*. Mol. Cell. Biol. 21: 2736-2742.
4. Bitto, E., et al. 2005. The structure at 2.5 A resolution of human basophilic leukemia-expressed protein BLES03. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 61: 812-817.
5. Zehelein, J., et al. 2006. Skipping of exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
6. Chiappetta, G., et al. 2007. Fra-1 protein overexpression is a feature of hyperplastic and neoplastic breast disorders. BMC Cancer 7: 17.
7. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick type C proteins depends on the adaptor complex AP-3. J. Cell Sci. 120: 3640-3652.
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CHROMOSOMAL LOCATION

Genetic locus: AI837181 (mouse) mapping to 19 A.

PRODUCT

Bles03 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 Bles03 shRNA Plasmid (m): sc-141710-SH and Bles03 shRNA (m) Lentiviral Particles: sc-141710-V as alternate gene silencing products.

For independent verification of Bles03 (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-141710A and sc-141710B.

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

Bles03 siRNA (m) is recommended for the inhibition of Bles03 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 Bles03 gene expression knockdown using RT-PCR Primer: Bles03 (m)-PR: sc-141710-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.