SANTA CRUZ BIOTECHNOLOGY, INC.

Bex6 siRNA (m): sc-141690

BACKGROUND

The brain-expressed X-linked (Bex) family of proteins is expressed in the central nervous system, with highest levels detected in cerebellum, temporal lobe and pituitary tissues. Bex6 is a 114 amino acid murine specific protein and member of the BEX family. Localized to the cytoplasm, Bex6 is degraded by the proteasome. The gene encoding Bex6 is located on chromosome 16 B2 and is 67% identical to mouse Bex4. Bex4 is frequently downregulated or inactivated by methylation in ovarian tumors and cancer cell lines. Forced expression of Bex4 induces apoptosis and reduces colony formation. This suggests that Bex4 acts as a tumor suppressor.

REFERENCES

1. Kim, A.J., et al. 2004. Bex3 associates with replicating mitochondria and is involved in possible growth control of F9 teratocarcinoma cells. Gene 343: 79-89.
2. Winter, E.E., et al. 2005. Mammalian BEX, WEX and GASP genes: coding and non-coding chimaerism sustained by gene conversion events. BMC Evol. Biol. 5: 54.
3. Alvarez, E., et al. 2005. Characterization of the Bex gene family in humans, mice, and rats. Gene 357: 18-28.
4. Koo, J.H., et al. 2005. Immunolocalization of Bex protein in the mouse brain and olfactory system. J. Comp. Neurol. 487: 1-14.
5. Han, C., et al. 2005. Human Bex2 interacts with LMO2 and regulates the transcriptional activity of a novel DNA-binding complex. Nucleic Acids Res. 33: 6555-6565.
6. Chien, J., et al. 2005. Epigenetic silencing of TCEAL7 (Bex4) in ovarian cancer. Oncogene 24: 5089-5100.
7. Naderi, A., et al. 2007. Bex2 is overexpressed in a subset of primary breast cancers and mediates nerve growth factor/nuclear factor-κB inhibition of apoptosis in breast cancer cell lines. Cancer Res. 67: 6725-6736.

CHROMOSOMAL LOCATION

Genetic locus: Bex6 (mouse) mapping to 16 B2.

PRODUCT

Bex6 siRNA (m) is a target-specific 19-25 nt siRNA 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 Bex6 shRNA Plasmid (m): sc-141690-SH and Bex6 shRNA (m) Lentiviral Particles: sc-141690-V as alternate gene silencing products.

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.

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

Bex6 siRNA (m) is recommended for the inhibition of Bex6 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 Bex6 gene expression knockdown using RT-PCR Primer: Bex6 (m)-PR: sc-141690-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.