SANTA CRUZ BIOTECHNOLOGY, INC.

JTB siRNA (m): sc-146334

BACKGROUND

Jumping translocation (JT) is an unstable and very rare cytogenetic event that results from the jumping of amplified chromosomal segments to telomeres. JTB (jumping translocation breakpoint protein), also known as PAR protein (prostate androgen-regulated protein) or HSPC222, is a 146 amino acid single-pass type I membrane protein that belongs to the JTB family. Ubiquitously expressed in all normal human tissues, JTB protein levels increase during the S phase of the cell cycle, with the highest levels expressed during G_2 and mitosis. Overexpressed in many tumors, JTB may play a role in the regulation of cell proliferation. JTB is required for normal cytokinesis during mitosis, and may be a member of the chromosomal passenger complex (CPC), a key regulator of mitosis. Existing as two alternatively spliced isoforms, the gene encoding JTB maps to human chromosome 1q21.3.

REFERENCES

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4. Xu, X., et al. 2007. Malignant phenotype of PC3 cell line was inhibited by siRNA targeting PAR gene. J. Huazhong Univ. Sci. Technol. Med. Sci. 27: 440-443.
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8. Chen, L., et al. 2010. Chromosome 1q21 amplification and oncogenes in hepatocellular carcinoma. Acta Pharmacol. Sin. 31: 1165-1171.
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CHROMOSOMAL LOCATION

Genetic locus: Jtb (mouse) mapping to 3 F1.

PRODUCT

JTB 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 JTB shRNA Plasmid (m): sc-146334-SH and JTB shRNA (m) Lentiviral Particles: sc-146334-V as alternate gene silencing 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

JTB siRNA (m) is recommended for the inhibition of JTB 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 JTB gene expression knockdown using RT-PCR Primer: JTB (m)-PR: sc-146334-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.