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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

FKBP8 siRNA (m): sc-45638

BACKGROUND

FKBP8 (FKBPr38, FK506 binding protein 8) is an immunophilin family member lacking PPIase/arotamase activity that influences immunoregulation, protein folding and trafficking in neurons associated with memory function. The FKBPr38 form derives from a truncated ORF. Presenilin 1 and 2 form molecular complexes with—and promote degradation of—FKBPr38, and Bcl-2, and sequester these proteins in ER/Golgi, thereby inhibiting FKBPr38-mediated, γ-secretase-independent, mitochondrial targeting of Bcl-2. FKBP8 present in the central nervous system can antagonize hedgehog (HH) signaling, where HH is critical for patterning and growth of many tissues in the developing embryo. Mouse FKBPr38 mRNA is present in neurons and glial cells and appears more pronounced in neurons associated with the hippocampal formation in adult mouse brains.

REFERENCES

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4. Bulgakov, O.V., et al. 2004. FKBP8 is a negative regulator of mouse Sonic hedgehog signaling in neural tissues. Development 131: 2149-2159.
5. Massaad, C.A., et al. 2004. Inhibition of transcription factor activity by nuclear compartment-associated Bcl-2. J. Biol. Chem. 279: 54470-54478.
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CHROMOSOMAL LOCATION

Genetic locus: Fkbp8 (mouse) mapping to 8 B3.3.

PRODUCT

FKBP8 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 FKBP8 shRNA Plasmid (m): sc-45638-SH and FKBP8 shRNA (m) Lentiviral Particles: sc-45638-V as alternate gene silencing products.

RESEARCH USE

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

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

FKBP8 siRNA (m) is recommended for the inhibition of FKBP8 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 FKBP8 gene expression knockdown using RT-PCR Primer: FKBP8 (m)-PR: sc-45638-PR (20 µl, 449 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.