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SANTA CRUZ BIOTECHNOLOGY, INC.

Protor-2 siRNA (m): sc-152488

BACKGROUND

mTOR is a large protein kinase that is important in cell growth and functions as the mammalian target of Rapamycin, an immunosuppressant that blocks vessel restenosis and also has potential anticancer applications. Rapamycin-insensitive companion of mTOR, also designated Rictor, forms a complex (designated mTORC2) with mTOR that directly phosphorylates Akt/PKB on Ser473 and plays a key role in growth signaling pathways. Protor-2, also known as PROTOR2 or FLJ14213, is a 368 amino acid protein that is thought to interact with the mTORC2 complex and, via this interaction, may regulate organization of the Actin cytoskeleton. Three isoforms of Protor-2 are expressed due to alternative splicing events.

REFERENCES

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4. Jacinto, E., et al. 2004. Mammalian TOR complex 2 controls the Actin cytoskeleton and is Rapamycin insensitive. Nat. Cell Biol. 6: 1122-1128.
5. Sarbassov, D.D., et al. 2004. Rictor, a novel binding partner of mTOR, defines a Rapamycin-insensitive and Raptor-independent pathway that regulates the cytoskeleton. Curr. Biol. 14: 1296-1302.
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CHROMOSOMAL LOCATION

Genetic locus: Prr5l (mouse) mapping to 2 E2.

PRODUCT

Protor-2 siRNA (m) is a pool of 3 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 Protor-2 shRNA Plasmid (m): sc-152488-SH and Protor-2 shRNA (m) Lentiviral Particles: sc-152488-V as alternate gene silencing products.

For independent verification of Protor-2 (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-152488A, sc-152488B and sc-152488C.

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

Protor-2 siRNA (m) is recommended for the inhibition of Protor-2 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 Protor-2 gene expression knockdown using RT-PCR Primer: Protor-2 (m)-PR: sc-152488-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.