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SANTA CRUZ BIOTECHNOLOGY, INC.

RNF123 siRNA (m): sc-153006

BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in protein-protein interactions and protein-DNA interactions. RNF123 (RING finger protein 123), also known as KPC1 (Kip1 (p27) ubiquitination-promoting complex protein 1) or FP1477, contains one RING-type zinc finger domain and one SPRY domain. Localizing to the cytoplasm, RNF123 functions as the catalytic component of the KPC complex that acts as an E3 ubiquitin-protein ligase. Specifically, RNF123 is essential for the ubiquitination and subsequent degradation of p27 during the cell cycle G_1 phase. Via its N-terminus, RNF123 is known to interact with GBDR1 (another component of the KPC) and p27 (a cyclin-dependent kinase inhibitor). Due to alternative splicing events, two isoforms exist for RNF123.

REFERENCES

1. Kamura, T., et al. 2004. Cytoplasmic ubiquitin ligase KPC regulates proteolysis of p27Kip1 at G_1 phase. Nat. Cell Biol. 6: 1229-1235.
2. Kotoshiba, S., et al. 2005. Molecular dissection of the interaction between p27 and Kip1 ubiquitylation-promoting complex, the ubiquitin ligase that regulates proteolysis of p27 in G_1 phase. J. Biol. Chem. 280: 17694-17700.
3. Hara, T., et al. 2005. Role of the UBL-UBA protein KPC2 in degradation of p27 at G_1 phase of the cell cycle. Mol. Cell. Biol. 25: 9292-9303.
4. Kotoshiba, S. and Nakayama, K. 2005. The degradation of p27 and cancer. Nippon Rinsho 63: 2047-2056.
5. Parcellier, A., et al. 2006. HSP27 favors ubiquitination and proteasomal degradation of p27Kip1 and helps S-phase re-entry in stressed cells. FASEB J. 20: 1179-1181.
6. Hattori, T., et al. 2007. Pirh2 promotes ubiquitin-dependent degradation of the cyclin-dependent kinase inhibitor p27Kip1. Cancer Res. 67: 10789-10795.
7. Nakakuki, M., et al. 2007. A transcription factor of lipid synthesis, sterol regulatory element-binding protein (SREBP)-1a causes G_1 cell-cycle arrest after accumulation of cyclin-dependent kinase (cdk) inhibitors. FEBS J. 274: 4440-4452.
8. Lee, J.G. and Kay, E.P. 2008. Involvement of two distinct ubiquitin E3 ligase systems for p27 degradation in corneal endothelial cells. Invest. Ophthalmol. Vis. Sci. 49: 189-196.

CHROMOSOMAL LOCATION

Genetic locus: Rnf123 (mouse) mapping to 9 F2.

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.

PRODUCT

RNF123 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 RNF123 shRNA Plasmid (m): sc-153006-SH and RNF123 shRNA (m) Lentiviral Particles: sc-153006-V as alternate gene silencing products.

For independent verification of RNF123 (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-153006A, sc-153006B and sc-153006C.

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

RNF123 siRNA (m) is recommended for the inhibition of RNF123 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 RNF123 gene expression knockdown using RT-PCR Primer: RNF123 (m)-PR: sc-153006-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.