SANTA CRUZ BIOTECHNOLOGY, INC.

IBRDC1 siRNA (m): sc-146130

BACKGROUND

IBRDC1 (IBR domain-containing protein 1), also known as RNF217, is a 275 amino acid single pass membrane protein that contains two IBR (in between ring fingers)-type zinc finger motifs. It is a member of the RBR (ring between ring fingers) family of diverse proteins and belongs to the animal-specific I subfamily. RBR proteins participate in a wide variety of cellular events, including RNA metabolism, translation, transcription, cell-cycle control, cellular signaling, subcellular tethering and regulation of posttranslational modifications. IBRDC1 is believed to function as an E3 ubiquitin ligase that participates in protein ubiquitinylation and degradation.

REFERENCES

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2. Marín, I., Lucas, J.I., Gradilla, A.C. and Ferrús, A. 2004. Parkin and relatives: the RBR family of ubiquitin ligases. Physiol. Genomics 17: 253-263.
3. Arnau, V., Gallach, M., Lucas, J.I. and Marín, I. 2006. UVPAR: fast detection of functional shifts in duplicate genes. BMC Bioinformatics 7: 174.
4. Lucas, J.I., Arnau, V. and Marín, I. 2006. Comparative genomics and protein domain graph analyses link ubiquitination and RNA metabolism. J. Mol. Biol. 357: 9-17.
5. Beasley, S.A., Hristova, V.A. and Shaw, G.S. 2007. Structure of the Parkin in-between-ring domain provides insights for E3-ligase dysfunction in autosomal recessive Parkinson's disease. Proc. Natl. Acad. Sci. USA 104: 3095-3100.
6. Eisenhaber, B., Chumak, N., Eisenhaber, F. and Hauser, M.T. 2007. The ring between ring fingers (RBR) protein family. Genome Biol. 8: 209.

CHROMOSOMAL LOCATION

Genetic locus: Rnf217 (mouse) mapping to 10 A4.

PRODUCT

IBRDC1 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 IBRDC1 shRNA Plasmid (m): sc-146130-SH and IBRDC1 shRNA (m) Lentiviral Particles: sc-146130-V as alternate gene silencing products.

For independent verification of IBRDC1 (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-146130A, sc-146130B and sc-146130C.

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

IBRDC1 siRNA (m) is recommended for the inhibition of IBRDC1 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.

GENE EXPRESSION MONITORING

IBRDC1 (36-A2): sc-101124 is recommended as a control antibody for monitoring of IBRDC1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor IBRDC1 gene expression knockdown using RT-PCR Primer: IBRDC1 (m)-PR: sc-146130-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.