SANTA CRUZ BIOTECHNOLOGY, INC.

IRF-2BP2 siRNA (m): sc-146285

BACKGROUND

Interferon regulatory factors-1 and -2 (IRF-1 and IRF-2) are DNA-binding proteins that function as regulators of both type I interferons (IFN-α and -β) and interferon-inducible genes. IRF-2BP2 (interferon regulatory factor 2 binding protein 2) is a 587 amino acid nuclear protein that belongs to the IRF-2BP family and exists as part of a corepressor complex with IRF-1 and IRF-2BP1. Interacting with the C-terminal domain of IRF-2, IRF-2BP2 functions to repress transcription in an IRF-2-dependent manner. IRF-2BP2 is expressed as three alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 1q42.3. Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and comprising 8% of the human genome. Several disorders, including Stickler syndrome, Parkinsons disease, Gaucher disease, malignant melanoma and Usher syndrome, are caused by defects chromosome 1-localized genes.

REFERENCES

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3. Beausoleil, S.A., Jedrychowski, M., Schwartz, D., Elias, J.E., Villen, J., Li, J., Cohn, M.A., Cantley, L.C. and Gygi, S.P. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.
4. Peng, Y.B., Yerle, M. and Liu, B. 2006. Mapping of nine porcine interferon regulatory factor genes. Anim. Genet. 37: 600-601.
5. Han, K.J., Jiang, L. and Shu, H.B. 2008. Regulation of IRF2 transcriptional activity by its sumoylation. Biochem. Biophys. Res. Commun. 372: 772-778.
6. Kimura, M. 2008. IRF2-binding protein-1 is a JDP2 ubiquitin ligase and an inhibitor of ATF2-dependent transcription. FEBS Lett. 582: 2833-2837.

CHROMOSOMAL LOCATION

Genetic locus: Irf2bp2 (mouse) mapping to 8 E2.

PRODUCT

IRF-2BP2 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 IRF-2BP2 shRNA Plasmid (m): sc-146285-SH and IRF-2BP2 shRNA (m) Lentiviral Particles: sc-146285-V as alternate gene silencing products.

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

IRF-2BP2 siRNA (m) is recommended for the inhibition of IRF-2BP2 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 IRF-2BP2 gene expression knockdown using RT-PCR Primer: IRF-2BP2 (m)-PR: sc-146285-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.