SANTA CRUZ BIOTECHNOLOGY, INC.

IFI-203 siRNA (m): sc-40699

BACKGROUND

Interferon-inducible proteins include IFI-202, IFI-203, IFI-204 and D3, which are encoded by six or more structurally related and IFN-inducible mouse genes mapping at the q21-q23 region of chromosome 1. The proteins encoded by these genes have homologous 200 amino acid segments. IFI-202 is a primarily nuclear phosphoprotein which inhibits cell growth, in part by modulating transcriptional activity of NFκB, E2F, AP-1 and p53. Two related human proteins, MNDA (myeloid cell nuclear differentiation antigen) and IFI-16, have also been described. Expression of MNDA has been observed specifically in cells of the granulocyte-macrophage lineage. IFI-16 is constitutively expressed in various T and B cell lines and can be induced by IFN-γ in HL60 cells. At least four of the Gene 200 cluster of IFN-inducible proteins, IFI-202, IFI-204, MNDA and IFI-16, are localized in the nucleus.

REFERENCES

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2. Briggs, R.C., et al. 1994. The human myeloid cell nuclear differentiation antigen gene is one of at least two related interferon-inducible genes located on chromosome 1q that are expressed specifically in hematopoietic cells. Blood 83: 2153-2162.
3. Lengyel, P., et al. 1995. The interferon-activatable gene 200 cluster: from structure toward function. Semin. Virol. 6: 203-213.
4. Dawson, M.J. and Trapani, J.A. 1995. IFI 16 gene encodes a nuclear protein whose expression is induced by interferons in human myeloid leukaemia cell lines. J. Cell Biol. 57: 39-51.
5. Min, W., et al. 1996. The interferon-inducible p202 protein as a modulator of transcription: inhibition of NFκB, c-Fos, and c-Jun activities. Mol. Cell. Biol. 16: 359-368.
6. Datta, B., et al. 1996. p202, an interferon-inducible modulator of transcription, inhibits transcriptional activation by the p53 tumor supressor protein, and a segment from the p53-binding protein 1 that binds to p202 overcomes this inhibition. J. Biol. Chem. 271: 27544-27555.
7. Kao, W.Y., et al. 1996. Characterization of the human myeloid cell nuclear differentiation antigen gene promoter. Biochem. Biophys. Acta 1308: 201-204.
8. Choubey, D., et al. 1996. Inhibition of E2F-mediated transcription by p202. EMBO J. 15: 5668-5678.

CHROMOSOMAL LOCATION

Genetic locus: Ifi203 (mouse) mapping to 1 H3.

PROTOCOLS

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

PRODUCT

IFI-203 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 IFI-203 shRNA Plasmid (m): sc-40699-SH and IFI-203 shRNA (m) Lentiviral Particles: sc-40699-V as alternate gene silencing products.

For independent verification of IFI-203 (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-40699A, sc-40699B and sc-40699C.

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

IFI-203 siRNA (m) is recommended for the inhibition of IFI-203 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 IFI-203 gene expression knockdown using RT-PCR Primer: IFI-203 (m)-PR: sc-40699-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.