

# Produktinformation



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Diagnostik & molekulare Diagnostik



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# Lieferung & Zahlungsart

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# Zuschläge

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# IFI-35 siRNA (m): sc-146151



The Power to Question

#### **BACKGROUND**

The Interferon family of proteins are able to alter the expression of a variety of target genes, thereby controlling various events within the cell. IFI-35 (Interferon-induced 35 kDa protein), also known as IFP35, is a 286 amino acid interferon-induced protein. Localized to the nucleus and expressed in macrophages, fibroblasts and epithelial cells, IFI-35 is a leucine zipper protein that can form homodimers, but, unlike most leucine zipper proteins, cannot bind DNA. Upon induction by IFN- $\alpha$ , IFI-35 associates with Nmi (N-Myc-interacting protein), resulting in the formation of a high molecular weight complex that is thought to play a role in IFN- $\alpha$  signaling and cellular responses. Once complexed with Nmi, IFI-35 is unable to be degraded by the proteasome, suggesting that IFI-35 is protected from degradation only when needed by IFN- $\alpha$ . Two isoforms of IFI-35 exist due to alternative splicing events.

### **REFERENCES**

- Bange, F.C., et al. 1994. IFP 35 is an interferon-induced leucine zipper protein that undergoes interferon-regulated cellular redistribution. J. Biol. Chem. 269: 1091-1098.
- Wang, X., et al. 1996. IFP 35 forms complexes with B-ATF, a member of the AP1 family of transcription factors. Biochem. Biophys. Res. Commun. 229: 316-322.
- Meyerdierks, A., et al. 1999. A cytoplasmic structure resembling large protein aggregates induced by interferons. J. Histochem. Cytochem. 47: 169-182.
- 4. Zhou, X., et al. 2000. Interferon- $\alpha$  induces nmi-IFP35 heterodimeric complex formation that is affected by the phosphorylation of IFP35. J. Biol. Chem. 275: 21364-21371.
- Chen, J., et al. 2000. Interferon-inducible Myc/STAT-interacting protein Nmi associates with IFP 35 into a high molecular mass complex and inhibits proteasome-mediated degradation of IFP 35. J. Biol. Chem. 275: 36278-36284.
- Chen, J. and Naumovski, L. 2002. Intracellular redistribution of interferoninducible proteins Nmi and IFP 35 in apoptotic cells. J. Interferon Cytokine Res. 22: 237-243.

#### CHROMOSOMAL LOCATION

Genetic locus: Ifi35 (mouse) mapping to 11 D.

### **PRODUCT**

IFI-35 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  $\mu M$  solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see IFI-35 shRNA Plasmid (m): sc-146151-SH and IFI-35 shRNA (m) Lentiviral Particles: sc-146151-V as alternate gene silencing products.

For independent verification of IFI-35 (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-146151A, sc-146151B and sc-146151C.

#### 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  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### **APPLICATIONS**

IFI-35 siRNA (m) is recommended for the inhibition of IFI-35 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**

IFI-35 (B-1): sc-393513 is recommended as a control antibody for monitoring of IFI-35 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-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-lgG $\kappa$  BP-FITC: sc-516140 or m-lgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor IFI-35 gene expression knockdown using RT-PCR Primer: IFI-35 (m)-PR: sc-146151-PR (20  $\mu$ l). 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.

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