

## IFI-35 (I-14): sc-109293

### 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 macro-phages, 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

1. Bange, F.C., et al. 1994. IFP-35 is an interferon-induced leucine zipper protein that under-goes interferon-regulated cellular redistribution. *J. Biol. Chem.* 269: 1091-1098.
2. 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.
3. Meyerdierts, 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.
5. Chen, J., et al. 2000. Interferon-inducible Myc/STAT-interacting protein Nmi associates with IFP35 into a high molecular mass complex and inhibits proteasome-mediated degradation of IFP 35. *J. Biol. Chem.* 275: 36278-36284.
6. Chen, J. and Naumovski, L. 2002. Intracellular redistribution of interferon-inducible proteins Nmi and IFP35 in apoptotic cells. *J. Interferon Cytokine Res.* 22: 237-243.
7. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600735. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Zhang, L., et al. 2007. The PH domain containing protein CKIP-1 binds to IFP35 and Nmi and is involved in cytokine signaling. *Cell. Signal.* 19: 932-944.

### CHROMOSOMAL LOCATION

Genetic locus: IFI35 (human) mapping to 17q21.31.

### SOURCE

IFI-35 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IFI-35 of human origin.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109293 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

IFI-35 (I-14) is recommended for detection of IFI-35 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFI-35 siRNA (h): sc-93718, IFI-35 shRNA Plasmid (h): sc-93718-SH and IFI-35 shRNA (h) Lentiviral Particles: sc-93718-V.

Molecular Weight of IFI-35: 35 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
 Satisfaction  
 Guaranteed

Try **IFI-35 (B-1): sc-393513** or **IFI-35 (E-7): sc-514213**, our highly recommended monoclonal alternatives to IFI-35 (I-14).