

IFI-35 (39.287): sc-100769

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- α , 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- α 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- α . 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.

CHROMOSOMAL LOCATION

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

SOURCE

IFI-35 (39.287) is a mouse monoclonal antibody raised against recombinant IFI-35 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IFI-35 (39.287) is recommended for detection of IFI-35 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] 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.

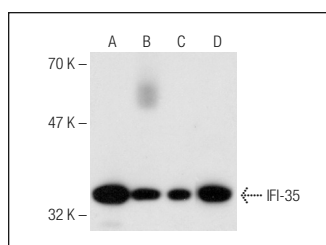
Molecular Weight of IFI-35: 35 kDa.

Positive Controls: IFI-35 (h): 293T Lysate: sc-175914, HL-60 whole cell lysate: sc-2209 or A-431 nuclear extract: sc-2122.

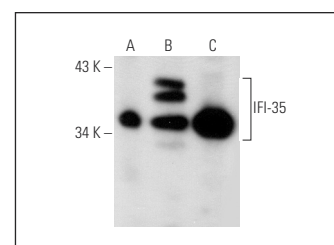
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



IFI-35 (39.287): sc-100769. Western blot analysis of IFI-35 expression in A-431 (A), HL-60 (B), HeLa (C) and Jurkat (D) whole cell lysates.



IFI-35 (39.287): sc-100769. Western blot analysis of IFI-35 expression in non-transfected: sc-117752 (A) and human IFI-35 transfected: sc-175914 (B) 293T whole cell lysates and A-431 nuclear extract (C).

SELECT PRODUCT CITATIONS

1. Duan, X., et al. 2011. Differential roles for the interferon-inducible IFI16 and AIM2 innate immune sensors for cytosolic DNA in cellular senescence of human fibroblasts. *Mol. Cancer Res.* 9: 589-602.
2. Das, A., et al. 2013. Interferon inducible protein IFI35 negatively regulates RIG-I antiviral signaling and supports vesicular stomatitis virus replication. *J. Virol.* 88: 3103-3113.
3. Das, A., et al. 2015. Trim21 regulates Nmi-IFI35 complex-mediated inhibition of innate antiviral response. *Virology* 485: 383-392.
4. Imaizumi, T., et al. 2016. Interferon (IFN)-induced protein 35 (IFI35), a type I interferon-dependent transcript, upregulates inflammatory signaling pathways by activating Toll-like receptor 3 in human mesangial cells. *Kidney Blood Press. Res.* 41: 635-642.
5. Shirai, K., et al. 2017. Interferon (IFN)-induced protein 35 (IFI35) negatively regulates IFN- β -phosphorylated Stat1-RIG-I-CXCL10/CCL5 axis in U373MG astrocytoma cells treated with polyinosinic-polycytidylic acid. *Brain Res.* 1658: 60-67.
6. Kerr, C.H., et al. 2020. Dynamic rewiring of the human interactome by interferon signaling. *Genome Biol.* 21: 140.

STORAGE

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

RESEARCH USE

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