SANTA CRUZ BIOTECHNOLOGY, INC.

IFI-35 (E-7): sc-514213

SANTA CRUZ BIOTECHNOLOGY

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-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 undergoes 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. 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-α 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 IFP 35 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 IFP 35 in apoptotic cells. J. Interferon Cytokine Res. 22: 237-243.
7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600735. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

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

SOURCE

IFI-35 (E-7) is a mouse monoclonal antibody raised against amino acids 1-162 mapping at the N-terminus of IFI-35 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IFI-35 (E-7) is recommended for detection of IFI-35 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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.

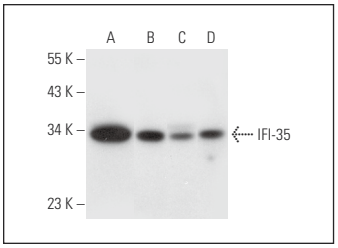
Molecular Weight of IFI-35: 35 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HL-60 whole cell lysate: sc-2209 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IFI-35 (E-7): sc-514213. Western blot analysis of IFI-35 expression in A-431 (**A**), HL-60 (**B**), HeLa (**C**) and Jurkat (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jian, D., et al. 2018. Interferon-induced protein 35 inhibits endothelial cell proliferation, migration and re-endothelialization of injured arteries by inhibiting the nuclear factor-κB pathway. Acta Physiol. 223: e13037.

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.