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ILF3 Rabbit mAb

Catalog # AP75614

Product Information

Application	WB, IHC-P, FC
Primary Accession	Q12906
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	95338

Additional Information

Gene ID	3609
Other Names	ILF3
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A FC~~1:50-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

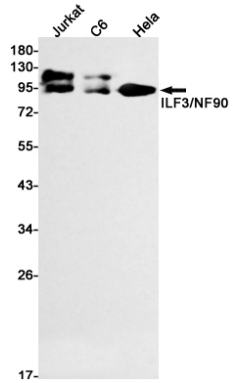
Name	ILF3
Synonyms	DRBF, MPHOSPH4, NF90
Function	RNA-binding protein that plays an essential role in the biogenesis of circular RNAs (circRNAs) which are produced by back- splicing circularization of pre-mRNAs. Within the nucleus, promotes circRNAs processing by stabilizing the regulatory elements residing in the flanking introns of the circularized exons. Plays thereby a role in the back-splicing of a subset of circRNAs (PubMed:28625552). As a consequence, participates in a wide range of transcriptional and post- transcriptional processes. Binds to poly-U elements and AU-rich elements (AREs) in the 3'-UTR of target mRNAs (PubMed:14731398). Upon viral infection, ILF3 accumulates in the cytoplasm and participates in the innate antiviral response (PubMed:21123651, PubMed:34110282). Mechanistically, ILF3 becomes phosphorylated and activated by the double-stranded RNA-activated protein kinase/PKR which releases ILF3 from cellular mature circRNAs. In turn, unbound ILF3 molecules

	are able to interact with and thus inhibit viral mRNAs (PubMed:21123651, PubMed:28625552).
Cellular Location	Nucleus, nucleolus. Cytoplasm. Nucleus. Note=Localizes in the cytoplasm in response to viral infection. The unphosphorylated form is retained in the nucleus by ILF2. Phosphorylation at Thr-188 and Thr-315 causes the dissociation of ILF2 from the ILF2-ILF3 complex resulting in a cytoplasmic sequestration of ILF3. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.
Tissue Location	Ubiquitous.

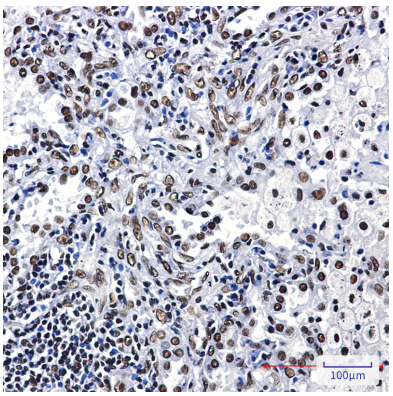
Background

May facilitate double-stranded RNA-regulated gene expression at the level of post-transcription. Can act as a translation inhibitory protein which binds to coding sequences of acid beta-glucosidase (GCase) and other mRNAs and functions at the initiation phase of GCase mRNA translation, probably by inhibiting its binding to polysomes.

Images

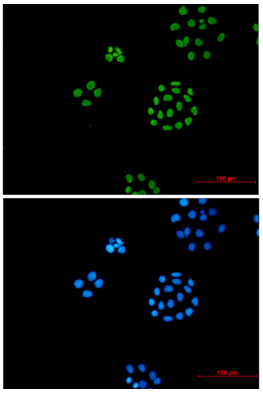


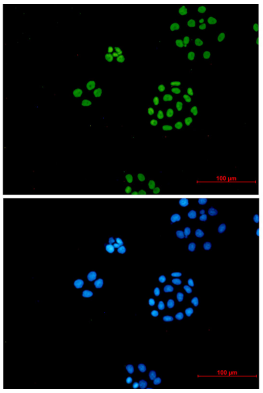
Western blot analysis of ILF3/NF90 in Jurkat, C6, Hela lysates using ILF3 antibody.



Immunohistochemistry analysis of paraffin-embedded Human lung cancer using ILF3 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

Immunocytochemistry analysis of ILF3 (green) in hela using ILF3 antibody,and DAPI(blue)





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