

# ILF3 Rabbit mAb

Catalog # AP75613

## Product Information

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<b>Application</b>	WB, IHC-P, FC
<b>Primary Accession</b>	<a href="#">Q12906</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	95338

## Additional Information

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

## Protein Information

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<b>Name</b>	ILF3
<b>Synonyms</b>	DRBF, MPHOSPH4, NF90
<b>Function</b>	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: <a href="#">28625552</a> ). 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: <a href="#">14731398</a> ). Upon viral infection, ILF3 accumulates in the cytoplasm and participates in the innate antiviral response (PubMed: <a href="#">21123651</a> , PubMed: <a href="#">34110282</a> ). 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.

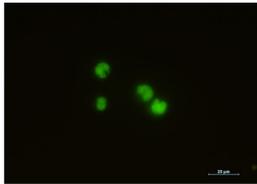
## Background

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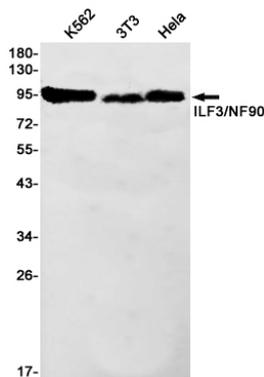
May facilitate double-stranded RNA-regulated gene expression at the level of post-transcription. Can act as a translation inhibitory protein which binds to coding sequences of acid beta-glucosidase (GCase) and other mRNAs and functions at the initiation phase of GCase mRNA translation, probably by inhibiting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

## Images

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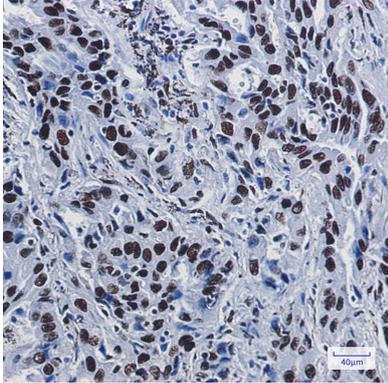
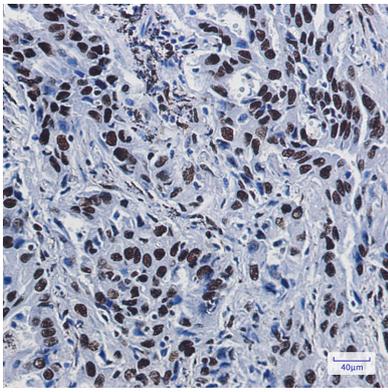


Immunocytochemistry analysis of ILF3 (green) in Jurkat using ILF3 antibody, and DAPI (blue).



Western blot analysis of ILF3/NF90 in K562, 3T3, HeLa lysates using ILF3/NF90 antibody.

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



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