

ILF3 Antibody

Rabbit mAb

Catalog # AP91866

Product Information

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| Application | WB, IHC, IF, FC, ICC, IP, IHF |
| Primary Accession | Q12906 |
| Reactivity | Human, Mouse |
| Clonality | Monoclonal |
| Other Names | CBTF; DRBF; MMP4; MPP4; NF90; NFAR; NF110; NF90a; NF90b; NFAR2; TCP80; DRBP76; NF110b; NFAR-1; TCP110; MPHOSPH4; NF-AT-90; |
| Isotype | Rabbit IgG |
| Host | Rabbit |
| Calculated MW | 95338 |

Additional Information

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| Dilution | WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50 |
| Purification | Affinity-chromatography |
| Immunogen | A synthesized peptide derived from human ILF3 |
| Description | 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. |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

Protein Information

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| 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](#)).

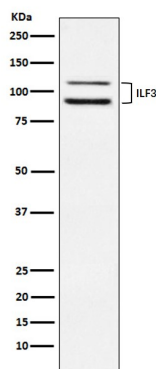
Cellular Location

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.

Images



Western blot analysis of ILF3 expression in HeLa cell lysate.

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