

ILF3 Rabbit mAb

Catalog # AP75613

Product Information

Application WB, IHC-P, IHC-F, IP, ICC

Primary Accession <u>Q12906</u>

Reactivity Human, Mouse

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 95338

Additional Information

Gene ID 3609

Other Names ILF3

Dilution WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A

Format Liquid

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:<u>14731398</u>). Upon viral infection, ILF3 accumulates in the cytoplasm and participates in the innate antiviral response (PubMed:<u>21123651</u>, PubMed:<u>34110282</u>). 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

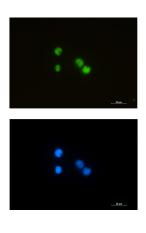
response to viral infection. The unphosphorylated form is retained in the nucleus by ILF2. Phosphorylation at Thr-188 and Thr-315 causes the dissociation of ILF2 from the ILF2-ILF3 complex resulting in a cytoplasmic

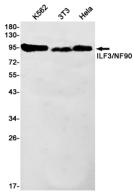
sequestration of ILF3. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

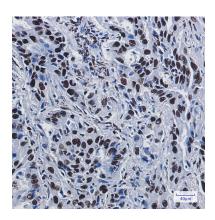
Tissue Location

Ubiquitous.

Images







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