10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ILF3 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51283

Specification

ILF3 Antibody - Product Information

Application	**WB**
Primary Accession	Q12906
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**90 KDa**
Antigen Region	**301 - 360**

ILF3 Antibody - Additional Information

Gene ID 3609

Other Names
Interleukin enhancer-binding factor 3, Double-stranded RNA-binding protein 76, DRBP76, M-phase phosphoprotein 4, MPP4, Nuclear factor associated with dsRNA, NFAR, Nuclear factor of activated T-cells 90 kDa, NF-AT-90, Translational control protein 80, TCP80, ILF3, DRBF, MPHOSPH4, NF90

Target/Specificity
KLH conjugated synthetic peptide derived from human ILF3

Dilution
WB~~ 1:1000

Format
0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage
Store at -20 °C.Stable for 12 months from date of receipt

ILF3 Antibody - 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.

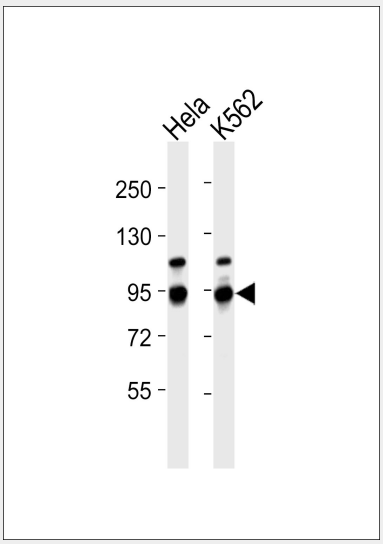
Tissue Location
Ubiquitous.

ILF3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ILF3 Antibody - Images



All lanes : Anti-ILF3 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysates Lane 2: K562

whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 95 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

ILF3 Antibody - 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. Can regulate protein arginine N- methyltransferase 1 activity. May regulate transcription of the IL2 gene during T-cell activation. Can promote the formation of stable DNA-dependent protein kinase holoenzyme complexes on DNA. The phosphorylated form at Thr-188 and Thr-315, in concert with EIF2AK2/PKR can inhibit vesicular stomatitis virus (VSV) replication (By similarity).

ILF3 Antibody - References

Kao P.N.,et al.J. Biol. Chem. 269:20691-20699(1994).
Patel R.C.,et al.J. Biol. Chem. 274:20432-20437(1999).
Xu Y.-H.,et al.Mol. Genet. Metab. 68:441-454(1999).
Duchange N.,et al.Gene 261:345-353(2000).
Saunders L.R.,et al.J. Biol. Chem. 276:32300-32312(2001).

ILF3 Antibody - Citations

- NF45 and NF90 Bind HIV-1 RNA and Modulate HIV Gene Expression.