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LARP1 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12097

Product Information

Application	WB
Primary Accession	Q6PKG0
Other Accession	NM_033551, NP_291029
Reactivity	Human, Rabbit
Predicted	Human, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	123510

Additional Information

Gene ID	23367
Alias Symbol	KIAA0731, LARP, MGC19556
Other Names	La-related protein 1, La ribonucleoprotein domain family member 1, LARP1, KIAA0731, LARP
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-LARP1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	LARP1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LARP1
Synonyms	KIAA0731, LARP
Function	RNA-binding protein that regulates the translation of specific target mRNA species downstream of the mTORC1 complex, in function of growth signals and nutrient availability (PubMed:20430826, PubMed:23711370, PubMed:24532714, PubMed:25940091, PubMed:28650797, PubMed:28673543, PubMed:29244122). Interacts on the one hand with the 3' poly-A tails that are present in all mRNA molecules, and on the other hand with the 7-methylguanosine cap structure of mRNAs containing a 5' terminal oligopyrimidine (5'TOP) motif, which is present in mRNAs encoding ribosomal

proteins and several components of the translation machinery (PubMed:23711370, PubMed:25940091, PubMed:26206669, PubMed:28379136, PubMed:28650797, PubMed:29244122). The interaction with the 5' end of mRNAs containing a 5'TOP motif leads to translational repression by preventing the binding of EIF4G1 (PubMed:25940091, PubMed:28379136, PubMed:28650797, PubMed:29244122). When mTORC1 is activated, LARP1 is phosphorylated and dissociates from the 5' untranslated region (UTR) of mRNA (PubMed:25940091, PubMed:28650797). Does not prevent binding of EIF4G1 to mRNAs that lack a 5'TOP motif (PubMed:28379136). Interacts with the free 40S ribosome subunit and with ribosomes, both monosomes and polysomes (PubMed:20430826, PubMed:24532714, PubMed:25940091, PubMed:28673543). Under normal nutrient availability, interacts primarily with the 3' untranslated region (UTR) of mRNAs encoding ribosomal proteins and increases protein synthesis (PubMed:23711370, PubMed:28650797). Associates with actively translating ribosomes and stimulates translation of mRNAs containing a 5'TOP motif, thereby regulating protein synthesis, and as a consequence, cell growth and proliferation (PubMed:20430826, PubMed:24532714). Stabilizes mRNAs species with a 5'TOP motif, which is required to prevent apoptosis (PubMed:20430826, PubMed:23711370, PubMed:25940091, PubMed:28673543).

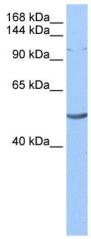
Cellular Location

Cytoplasm. Cytoplasmic granule Note=Colocalizes with RPTOR and PABPC1 in cytoplasmic granules that resemble stress granules.

References

Ewing,R.M.,Mol.Syst.Biol.3,89(2007)ReconstitutionandStorage:Forshorttermuse,storeat2-8Cupto1week.Forlongtermstorage,storeat-20Cinsmallaliquotstopreventfreeze-thawcycles.

Images



WB Suggested Anti-LARP1 Antibody Titration: 0.2-1 µg/ml
Positive Control: 721_B cell lysate
LARP1 is strongly supported by BioGPS gene expression data to be expressed in Human 721_B cells

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.