

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](#)).

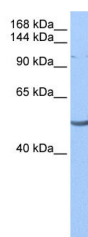
Cellular Location

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) Reconstitution and Storage: For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

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'.