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RPL5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9261a

Specification

RPL5 Antibody (N-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P46777
Other Accession	P19949, Q95276, Q4R5M0, P22451, Q58DW5, P15126, P15125
Reactivity	**Human**
Predicted	**Xenopus, Bovine, Chicken, Monkey, Pig, Rabbit**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**34363**
Antigen Region	**1-30**

RPL5 Antibody (N-term) - Additional Information

Gene ID 6125

Other Names
60S ribosomal protein L5, RPL5

Target/Specificity
This RPL5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human RPL5.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
RPL5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

RPL5 Antibody (N-term) - Protein Information

Name RPL5

Function Component of the ribosome, a large ribonucleoprotein complex responsible for the synthesis of proteins in the cell. The small ribosomal subunit (SSU) binds messenger RNAs (mRNAs) and translates the encoded message by selecting cognate aminoacyl-transfer RNA (tRNA) molecules. The large subunit (LSU) contains the ribosomal catalytic site termed the peptidyl transferase center (PTC), which catalyzes the formation of peptide bonds, thereby polymerizing the amino acids delivered by tRNAs into a polypeptide chain. The nascent polypeptides leave the ribosome through a tunnel in the LSU and interact with protein factors that function in enzymatic processing, targeting, and the membrane insertion of nascent chains at the exit of the ribosomal tunnel. As part of the 5S RNP/5S ribonucleoprotein particle it is an essential component of the LSU, required for its formation and the maturation of rRNAs (PubMed:12962325, PubMed:19061985, PubMed:24120868, PubMed:23636399). It also couples ribosome biogenesis to p53/TP53 activation. As part of the 5S RNP it accumulates in the nucleoplasm and inhibits MDM2, when ribosome biogenesis is perturbed, mediating the stabilization and the activation of TP53 (PubMed:24120868).

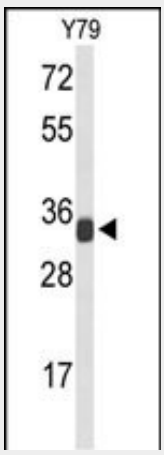
Cellular Location
Cytoplasm {ECO:0000269|PubMed:15469983, ECO:0000269|Ref.7}. Nucleus, nucleolus {ECO:0000269|PubMed:15469983, ECO:0000269|Ref.7}. Note=Although RP5 is functional within the cytoplasm, the assembly of ribosomal subunits occurs in the nucleus RPL5 nuclear import is mediated by IPO5/RanBP5, IPO7/RanBP7, KPNB1/importin-beta or TPNO1/Trn.

RPL5 Antibody (N-term) - Protocols

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

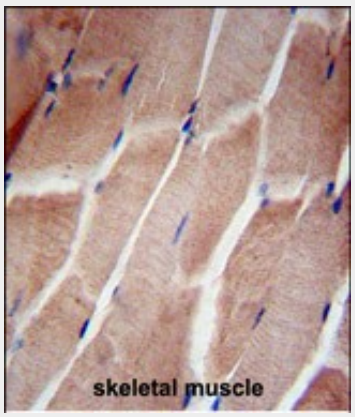
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RPL5 Antibody (N-term) - Images



Western blot analysis of RPL5 Antibody (N-term) (Cat. #AP9261a) in Y79 cell line lysates (35ug/lane). RPL5 (arrow) was detected using the purified Pab.

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RPL5 Antibody (N-term) (Cat. #AP9261a) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the RPL5 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

RPL5 Antibody (N-term) - Background

RPL5 encodes a ribosomal protein that is a component of the 60S subunit. The protein belongs to the L18P family of ribosomal proteins. It is located in the cytoplasm. The protein binds 5S rRNA to form a stable complex called the 5S ribonucleoprotein particle (RNP), which is necessary for the transport of nonribosome-associated cytoplasmic 5S rRNA to the nucleolus for assembly into ribosomes. The protein interacts specifically with the beta subunit of casein kinase II.

RPL5 Antibody (N-term) - References

Quarello,P., et.al., Haematologica 95 (2), 206-213 (2010)
Hoppenbrouwers,I.A., et.al., J. Hum. Genet. 54 (11), 676-680 (2009)