

RPL5 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP9261a**Specification**

RPL5 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P46777](#)**RPL5 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 6125**Other Names**

60S ribosomal protein L5, RPL5

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP9261a](/products/AP9261a) was selected from the N-term region of human RPL5. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RPL5 Antibody (N-term) Blocking Peptide - 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](http://www.uniprot.org/citations/12962325), PubMed:[19061985](http://www.uniprot.org/citations/19061985), PubMed:[19061985](http://www.uniprot.org/citations/19061985)).

href="http://www.uniprot.org/citations/23636399" target="_blank">23636399, PubMed:24120868). 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

RPL5 Antibody (N-term) Blocking Peptide - Images

RPL5 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - References

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