

RPL5 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP53318

Product Information

Application	WB
Primary Accession	P46777
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34363

Additional Information

Gene ID	6125
Other Names	60S ribosomal protein L5, RPL5
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	RPL5
Function	<p>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: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).</p>

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.

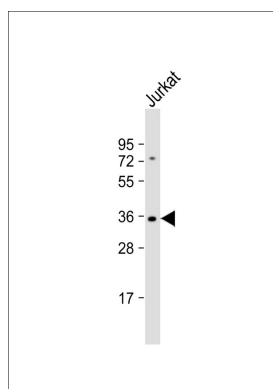
Background

Required for rRNA maturation and formation of the 60S ribosomal subunits. This protein binds 5S RNA.

References

Frigerio J.-M.,et al.Biochim. Biophys. Acta 1262:64-68(1995).
Liu B.,et al.Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Gregory S.G.,et al.Nature 441:315-321(2006).
Odintsova T.I.,et al.J. Protein Chem. 22:249-258(2003).

Images



Anti-RPL5 Antibody at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 35 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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