

RPS19 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12039c

Product Information

Application WB, FC, E **Primary Accession** P39019

Other Accession <u>P17074, Q9CZX8, Q32PD5, NP 001013.1</u>

Reactivity Human

Predicted Bovine, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB31945
Calculated MW 16060
Antigen Region 25-54

Additional Information

Gene ID 6223

Other Names 40S ribosomal protein S19, RPS19

Target/Specificity This RPS19 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 25-54 amino acids from the Central

region of human RPS19.

Dilution WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.

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 RPS19 Antibody (Center) is for research use only and not for use in diagnostic

or therapeutic procedures.

Protein Information

Name RPS19 (<u>HGNC:10402</u>)

Function Component of the small ribosomal subunit (PubMed: <u>23636399</u>). The

ribosome is a large ribonucleoprotein complex responsible for the synthesis of proteins in the cell (PubMed: <u>23636399</u>). Required for pre- rRNA processing

and maturation of 40S ribosomal subunits (PubMed:16990592). Part of the small subunit (SSU) processome, first precursor of the small eukaryotic ribosomal subunit. During the assembly of the SSU processome in the nucleolus, many ribosome biogenesis factors, an RNA chaperone and ribosomal proteins associate with the nascent pre-rRNA and work in concert to generate RNA folding, modifications, rearrangements and cleavage as well as targeted degradation of pre-ribosomal RNA by the RNA exosome (PubMed:34516797).

Cellular Location Cytoplasm. Nucleus, nucleolus

Tissue Location Higher level expression is seen in the colon carcinoma tissue than normal

colon tissue

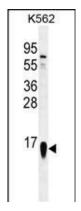
Background

Ribosomes, the organelles that catalyze protein synthesis, consist of a small 40S subunit and a large 60S subunit. Together these subunits are composed of 4 RNA species and approximately 80 structurally distinct proteins. This gene encodes a ribosomal protein that is a component of the 40S subunit. The protein belongs to the S19E family of ribosomal proteins. It is located in the cytoplasm. Mutations in this gene cause Diamond-Blackfan anemia (DBA), a constitutional erythroblastopenia characterized by absent or decreased erythroid precursors, in a subset of patients. This suggests a possible extra-ribosomal function for this gene in erythropoietic differentiation and proliferation, in addition to its ribosomal function. Higher expression levels of this gene in some primary colon carcinomas compared to matched normal colon tissues has been observed. As is typical for genes encoding ribosomal proteins, there are multiple processed pseudogenes of this gene dispersed through the genome.

References

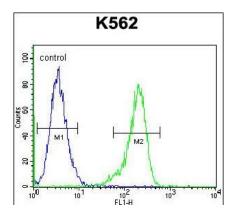
Devlin, E.E., et al. Blood 116(15):2826-2835(2010) Iadevaia, V., et al. Oncogene 29(40):5490-5499(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Nishiura, H., et al. Apoptosis 15(8):966-981(2010) Schuster, J., et al. Blood Cells Mol. Dis. 45(1):23-28(2010)

Images



RPS19 Antibody (Center) (Cat. #AP12039c) western blot analysis in K562 cell line lysates (35ug/lane). This demonstrates the RPS19 antibody detected the RPS19 protein (arrow).

RPS19 Antibody (Center) (Cat. #AP12039c) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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