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RPS13 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4803c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P62277
Other Accession	P49393, P62278, P62301, Q9WVH0, Q6ITC7, Q56JX8
Reactivity	Human
Predicted	Bovine, Chicken, Hamster, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23828
Calculated MW	17222
Antigen Region	82-110

Additional Information

Gene ID	6207
Other Names	40S ribosomal protein S13, RPS13
Target/Specificity	This RPS13 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-110 amino acids from the Central region of human RPS13.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	RPS13 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RPS13 (HGNC:10386)
Function	Component of the small ribosomal subunit. The ribosome is a large ribonucleoprotein complex responsible for the synthesis of proteins in the

cell. 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

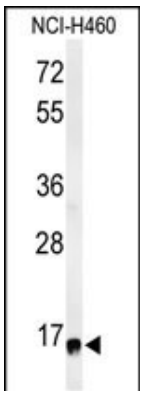
Background

RPS13, 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 S15P family of ribosomal proteins. It is located in the cytoplasm. The protein has been shown to bind to the 5.8S rRNA in rat. The gene product of the E. coli ortholog (ribosomal protein S15) functions at early steps in ribosome assembly. This gene is co-transcribed with two U14 small nucleolar RNA genes, which are located in its third and fifth introns. As is typical for genes encoding ribosomal proteins, there are multiple processed pseudogenes of this gene dispersed through the genome.

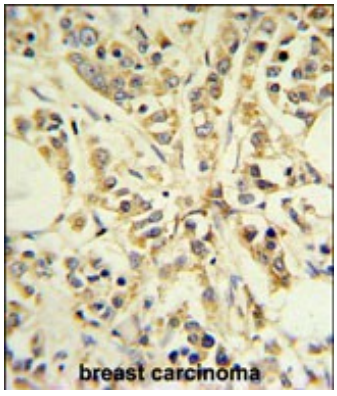
References

Malygin, A.A., et al. Nucleic Acids Res. 35(19):6414-6423(2007)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Yu, Y., et al. Protein Sci. 14(6):1438-1446(2005)

Images

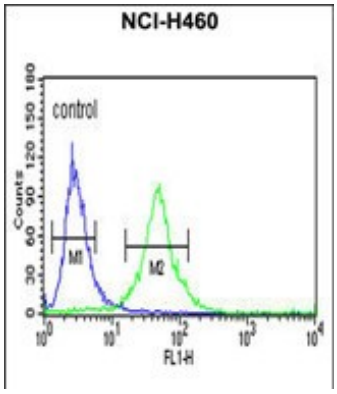


Western blot analysis of RPS13 Antibody (Center) (Cat. #AP4803c) in NCI-H460 cell line lysates (35ug/lane). RPS13 (arrow) was detected using the purified Pab.



RPS13 Antibody (Center) (Cat. #AP4803c) IHC analysis in formalin fixed and paraffin embedded breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the RPS13 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

RPS13 Antibody (Center) (Cat. #AP4803c) flow cytometric



analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.