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CLNS1A Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6520c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P54105
Other Accession	Q04753, Q28678, Q61189
Reactivity	Human
Predicted	Mouse, Rabbit, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19566
Calculated MW	26215
Antigen Region	148-176

Additional Information

Gene ID	1207
Other Names	Methylosome subunit pICln, Chloride channel, nucleotide sensitive 1A, Chloride conductance regulatory protein ICln, I(Cln), Chloride ion current inducer protein, ClCI, Reticulocyte pICln, CLNS1A, CLCI, ICLN
Target/Specificity	This CLNS1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 148-176 amino acids from the Central region of human CLNS1A.
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	CLNS1A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CLNS1A

Synonyms	CLCI, ICLN
Function	Involved in both the assembly of spliceosomal snRNPs and the methylation of Sm proteins (PubMed:10330151, PubMed:11713266, PubMed:18984161, PubMed:21081503). Chaperone that regulates the assembly of spliceosomal U1, U2, U4 and U5 small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome, and thereby plays an important role in the splicing of cellular pre- mRNAs (PubMed:10330151, PubMed:18984161). Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP (Sm core) (PubMed:10330151). In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP (PubMed:10330151, PubMed:18984161). Dissociation by the SMN complex of CLNS1A from the trapped Sm proteins and their transfer to an SMN-Sm complex triggers the assembly of core snRNPs and their transport to the nucleus (PubMed:10330151, PubMed:18984161).
Cellular Location	Cytoplasm, cytosol. Nucleus. Cytoplasm, cytoskeleton. Note=A small fraction is also associated with the cytoskeleton (PubMed:18984161)

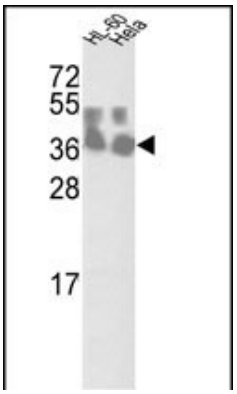
Background

CLNS1A is a protein that functions in multiple regulatory pathways. The protein complexes with numerous cytosolic proteins and performs diverse functions including regulation of small nuclear ribonucleoprotein biosynthesis, platelet activation and cytoskeletal organization. The protein is also found associated with the plasma membrane where it functions as a chloride current regulator.

References

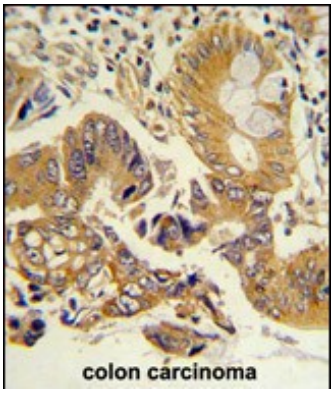
Yeung,C.H., Biol. Reprod. 73 (5), 1057-1063 (2005)

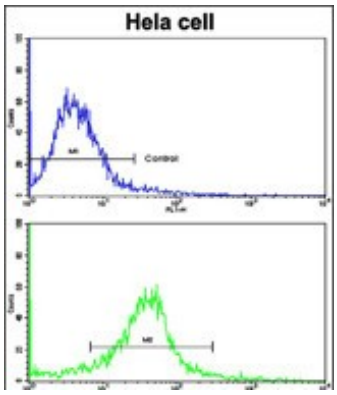
Images



Western blot analysis of CLNS1A Antibody (Center) (Cat.# AP6520c) in HL-60 and Hela cell line lysates (35ug/lane). CLNS1A (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human colon carcinoma reacted with CLNS1A Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





Flow cytometric analysis of hela cells using CLNS1A Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.