10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

pICln Polyclonal Antibody

Catalog # AP71904

Product Information

Application	WB
Primary Accession	P54105
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	26215

Additional Information

Gene ID	1207
Other Names	CLNS1A; CLCI; ICLN; Methylosome subunit pICln; Chloride channel; nucleotide sensitive 1A; Chloride conductance regulatory protein ICln; I(Cln); Chloride ion current inducer protein; ClCI; Reticulocyte pICln
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/5000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

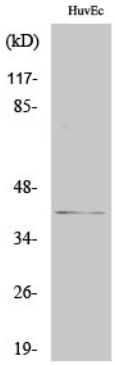
Name	CLNS1A
Synonyms	CLCI, ICLN
Function	Involved in both the assembly of spliceosomal snRNPs and the methylation of Sm proteins (PubMed:10330151, PubMed:11713266, PubMed:18984161, PubMed:21081503). Chaperone that regulates the assembly of spliceosomal U1, U2, U4 and U5 small nuclear ribonucleoproteins (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

Involved in both the assembly of spliceosomal snRNPs and the methylation of Sm proteins (PubMed:21081503, PubMed:18984161). Chaperone that regulates the assembly of spliceosomal U1, U2, U4 and U5 small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the splicing of cellular pre-mRNAs. 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. 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. 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. May also indirectly participate in cellular volume control by activation of a swelling-induced chloride conductance pathway.

Images



Western Blot analysis of various cells using pICln Polyclonal Antibody