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CDC2L1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50040

Product Information

Application	WB
Primary Accession	P21127
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Calculated MW	92620

Additional Information

Gene ID	984
Other Names	Cyclin-dependent kinase 11B, Cell division cycle 2-like protein kinase 1, CLK-1, Cell division protein kinase 11B, Galactosyltransferase-associated protein kinase p58/GTA, PITSLRE serine/threonine-protein kinase CDC2L1, p58 CLK-1, CDK11B, CDC2L1, CDK11, PITSLREA, PK58
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	CDK11B {ECO:0000303|PubMed:40858114, ECO:0000312|HGNC:HGNC:1729}
Function	Cyclin-dependent protein kinase that acts as a regulator of transcription and pre-mRNA splicing (PubMed:12501247, PubMed:18216018, PubMed:32367068, PubMed:36104565). Acts as a key regulator of pre-mRNA splicing by mediating phosphorylation of SF3B1, enabling the association between SF3B1 and U5 and U6 snRNAs in the activated spliceosome, thereby promoting spliceosome assembly (PubMed:36104565, PubMed:38059508). Also acts as a regulator of transcription by phosphorylating 'Ser-2' of the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II) POLR2A (PubMed:32367068, PubMed:40858114). Involved in replication-dependent transcription of histone genes: binds to histone genes and phosphorylates POLR2A at 'Ser-2' of the CTD to specifically control transcriptional elongation of histones and recruitment of 3'-end processing factors (PubMed:32367068). Part of a transcription checkpoint upstream of CDK9, which regulates promoter-proximal pausing by RNA polymerase II, a

	transcription halt following transcription initiation, but prior to elongation (PubMed:40858114). Probably regulates promoter-proximal pausing by mediating phosphorylation of POLR2A at 'Ser-2' of the CTD (PubMed:40858114). Activated by the CDK-activating kinase (CAK) complex consisting of CDK7, cyclin-H/CCNH and MAT1, which is a master regulator of CDK activity (PubMed:41100585).
Cellular Location	Nucleus. Chromosome Cytoplasm. Note=Localizes to transcription start site (TSS) proximal regions. [Isoform 7]: Nucleus. Chromosome, centromere
Tissue Location	Expressed ubiquitously. Some evidence of isoform- specific tissue distribution.

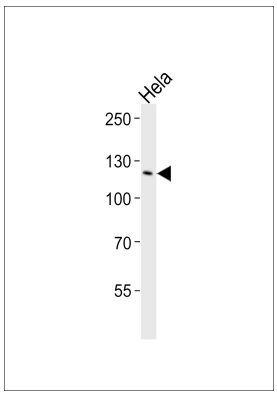
Background

Appears to play multiple roles in cell cycle progression, cytokinesis and apoptosis. The p110 isoforms have been suggested to be involved in pre-mRNA splicing, potentially by phosphorylating the splicing protein SFRS7. The p58 isoform may act as a negative regulator of normal cell cycle progression.

References

Bunnell B.A.,et al.Proc. Natl. Acad. Sci. U.S.A. 87:7467-7471(1990).
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Eipers P.G.,et al.Genomics 13:613-621(1992).
Xiang J.,et al.J. Biol. Chem. 269:15786-15794(1994).
Gururajan R.,et al.Genome Res. 8:929-939(1998).

Images



Western blot analysis of lysates from Hela cell line ,using CDC2L1 Antibody(C10442). C10442 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug.

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