

CDK11B Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP53333

Product Information

Application	WB
Primary Accession	P21127
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92620

Additional Information

Gene ID	984
Other Names	Cyclin-dependent kinase 11B, 2.7.11.22, 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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human CDK11B. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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](#)).

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.

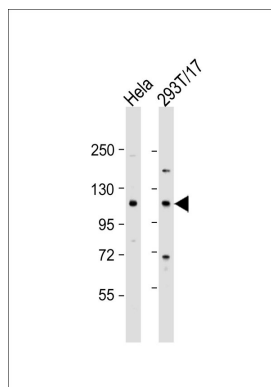
Background

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



All lanes : Anti-CDK11B Antibody at 1:1000 dilution Lane 1: HeLa whole cell lysate Lane 2: 293T/17 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 93 kDa Blocking/Dilution buffer: 5% NFD/MTBST.

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