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PITSLRE Polyclonal Antibody

Catalog # AP71922

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P21127
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92620

Additional Information

Gene ID	984
Other Names	CDK11B; CDC2L1; CDK11; PITSLREA; PK58; 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-prot
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

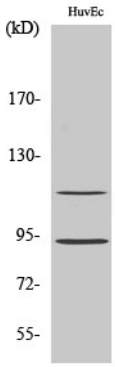
Name	CDK11B {ECO:0000303|PubMed:40858114, ECO:0000312|HGNC:HGNC:1729}
Function	Cyclin-dependent protein kinase that acts as a regulator of transcription and pre-mRNA splicing (PubMed:12501247, PubMed:18216018, PubMed:32367068, PubMed:36104565). Acts as a key regulator of pre-mRNA splicing by mediating 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

Plays multiple roles in cell cycle progression, cytokinesis and apoptosis. Involved in pre-mRNA splicing in a kinase activity-dependent manner. Isoform 7 may act as a negative regulator of normal cell cycle progression.

Images



Western Blot analysis of various cells using PITSLRE Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.