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

# Anti-CDK11B Antibody

Catalog # AP53333

## Product Information

| | |
|---|---|
| **Application** | WB, IHC |
| **Primary Accession** | P21127 |
| **Reactivity** | Human, Mouse, Rat, Pig, Chicken, Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 92620 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 984 |
| **Other Names** | 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-protein kinase CDC2L1; p58 CLK-1 |
| **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 IHC~~1:100~500 |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

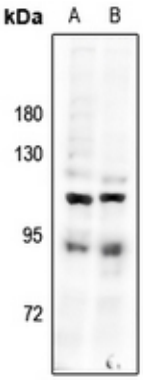
| | |
|---|---|
| **Name** | CDK11B {ECO:0000303\|PubMed:40858114, ECO:0000312\|HGNC:HGNC:1729} |
| **Function** | Cyclin-dependent protein kinase that acts as a regulator of transcription and pre-mRNA splicing (PubMed:12501247, PubMed:18216018, PubMed:32367068, PubMed:36104565). Acts as a key regulator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

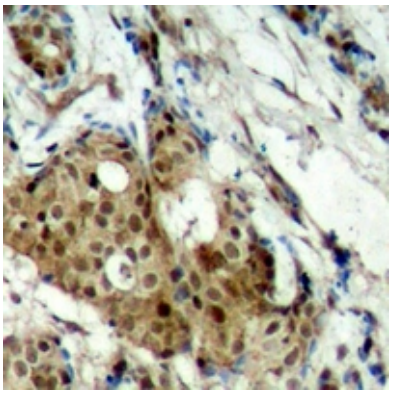
## References


Bunnell B.A.,et al.Proc. Natl. Acad. Sci. U.S.A. 87:7467-7471(1990).
Bunnell B.A.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:2612-2612(1991).
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 CDK11B expression in CT26 (A), Hela (B) whole cell lysates. (Predicted band size: 92 kD; Observed band size: 115; 92 kD)



Immunohistochemical analysis of CDK11B staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.


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