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CDK3 Antibody (N-term Y19)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7519a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q00526
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15488
Calculated MW	35046
Antigen Region	4-38

Additional Information

Gene ID	1018
Other Names	Cyclin-dependent kinase 3, Cell division protein kinase 3, CDK3, CDKN3
Target/Specificity	This CDK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4-38 amino acids from the N-terminal region of human CDK3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDK3 Antibody (N-term Y19) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDK3
Synonyms	CDKN3
Function	Serine/threonine-protein kinase that plays a critical role in the control of the eukaryotic cell cycle; involved in G0-G1 and G1-S cell cycle transitions.

	Interacts with CCNC/cyclin-C during interphase. Phosphorylates histone H1, ATF1, RB1 and CABLES1. ATF1 phosphorylation triggers ATF1 transactivation and transcriptional activities, and promotes cell proliferation and transformation. CDK3/cyclin-C mediated RB1 phosphorylation is required for G0-G1 transition. Promotes G1-S transition probably by contributing to the activation of E2F1, E2F2 and E2F3 in a RB1-independent manner.
Tissue Location	Expressed in cancer cell lines and glioblastoma tissue.

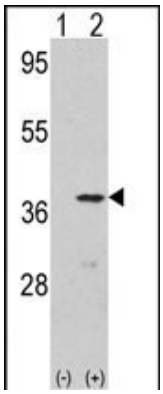
Background

This gene encodes a member of the cyclin-dependent protein kinase family. The protein promotes entry into S phase, in part by activating members of the E2F family of transcription factors. The protein also associates with cyclin C and phosphorylates the retinoblastoma 1 protein to promote exit from G0.

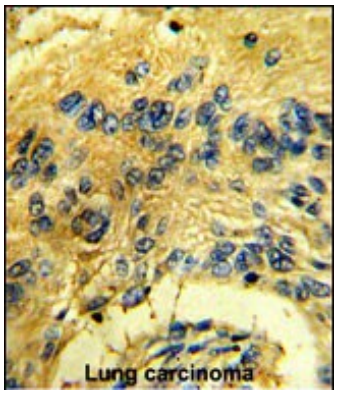
References

Bullrich, F., et al., Cancer Res. 55(6):1199-1205 (1995).
Meyerson, M., et al., EMBO J. 11(8):2909-2917 (1992).

Images

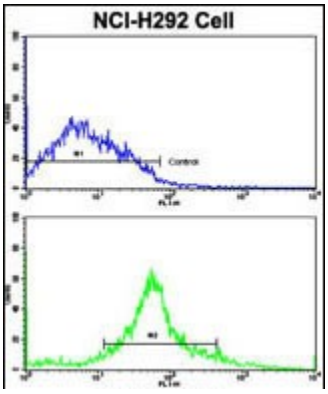


Western blot analysis of CDK3(arrow) using rabbit polyclonal CDK3 Antibody (N-term Y19) (Cat. #). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CDK3 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with CDK3 Antibody (N-term Y19), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of NCI-H292 cells using CDK3 Antibody (N-term Y19)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Selective activation of tumor-suppressive MAPKP signaling pathway by triptonide effectively inhibits pancreatic cancer cell tumorigenicity and tumor growth.