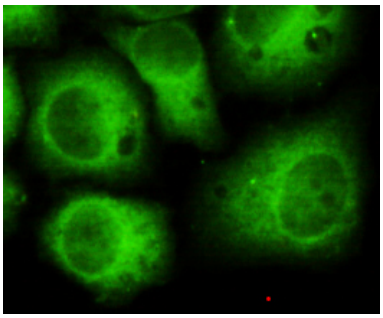
CDK5 (N-terminus) Antibody

E2200543

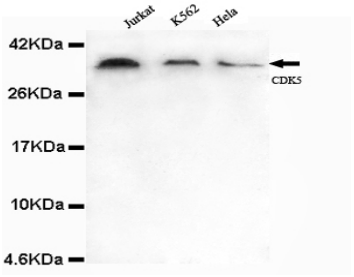
For Research Use Only

Catalog Number: E2200543
Size: 100ug
Host: Mouse
Formulation: Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50%,glycerol
Sensitivity: This antibody detects endogenous levels CDK5(N-terminus) and does not cross-react with related proteins.
Entrez summary: Cdks (cyclin-dependent kinases) are heteromeric serine/threonine kinases that control progression through the cell cycle in concert with their regulatory subunits, the cyclins. Although there are 12 different cdk genes, only 5 have been shown to directly drive the cell cycle (Cdk1, -2, -3, -4, and -6). Following extracellular mitogenic stimuli, cyclin D gene expression is upregulated. Cdk4 forms a complex with cyclin D and phosphorylates Rb protein, leading to liberation of the transcription factor E2F. E2F induces transcription of genes including cyclins A and E, DNA polymerase and thymidine kinase. Cdk4-cyclin E complexes form and initiate G1/S transition. Subsequently, Cdk1-cyclin B complexes form and induce G2/M phase transition. Cdk1-cyclin B activation induces the breakdown of the nuclear envelope and the initiation of mitosis. Cdks are constitutively expressed and are regulated by several kinases and phosphastases, including Wee1, CDK-activating kinase and Cdc25 phosphatase. In addition, cyclin expression is induced by molecular signals at specific points of the cell cycle, leading to activation of Cdks. Tight control of Cdks is essential as misregulation can induce unscheduled proliferation, and genomic and chromosomal instability. Cdk4 has been shown to be mutated in some types of cancer, whilst a chromosomal rearrangement can lead to Cdk6 overexpression in lymphoma, leukemia and melanoma. Cdks are currently under investigation as potential targets for antineoplastic therapy, but as Cdks are essential for driving each cell cycle phase, therapeutic strategies that block Cdk activity are unlikely to selectively target tumor cells.
UniPort summary Probably involved in the control of the cell cycle. Interacts with D1 and D3-type G1 cyclins.
Function: Can phosphorylate histone H1, tau, MAP2 and NF-H and NF-M. Also interacts with p35 which activates the kinase.
Immunogen: Purified recombinant human CDK5(N-terminus) protein fragments expressed in E.coli.
Antibody Type: Monoclonal antibody
Isotype: IgG1
Purified method: Affinity purified
Subcellular location: Cytoplasm. Cell membrane; Peripheral membrane protein. Perikaryon. Cell projection
Reactivity: H
Applications: WB, ICC
Molecular Weight: 36kDa
UniProt number: Q00535
GeneBank ID: NM_004935
Gene symbol: PSSALRE
Alternate names: PSSALRE

For Research Use Only



Immunocytochemistry of HeLa cells using anti-CDK5(N-terminus) antibody diluted 1:150.



Western blot detection of CDK5(N-terminus) antibody in Jurkat,K562&Hela lysates using CDK5(N-terminus) antibody (1:1000 diluted). Predicted band size: 36KDa Observed band size: 36KDa.