

CDK5 (Phospho Tyr15) Rabbit pAb

CatalogNo: YP0380 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat, Monkey

Applications

- WB, IHC, IF, ELISA

MW

- 33kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000**IHC 1:100-1:300****ELISA 1:5000****IF 1:50-200**

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human CDK5 around the phosphorylation site of Tyr15. AA range:1-50

Specificity

Phospho-CDK5 (Y15) Polyclonal Antibody detects endogenous levels of CDK5 protein only when phosphorylated at Y15. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):GTYGT

| Target Information

Gene name CDK5 CDKN5

Protein Name Cyclin-dependent kinase 5

Organism	Gene ID	UniProt ID
Human	1020 ;	Q00535 ;
Mouse	12568 ;	P49615 ;
Rat	140908 ;	Q03114 ;

Cellular Localization

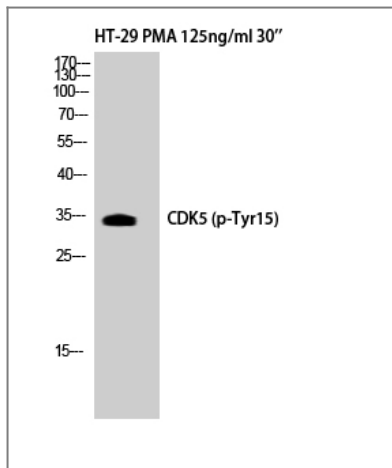
[Isoform 1]: Cytoplasm . Nucleus . Cell membrane ; Peripheral membrane protein. Perikaryon. Cell projection, lamellipodium . Cell projection, growth cone . Cell junction, synapse, postsynaptic density . Cell junction, synapse . In axonal growth cone with extension to the peripheral lamellipodia (By similarity). Under neurotoxic stress and neuronal injury conditions, CDK5R (p35) is cleaved by calpain to generate CDK5R1 (p25) in response to increased intracellular calcium. The elevated level of p25, when in complex with CDK5, leads to its subcellular misallocation as well as its hyperactivation. Colocalizes with CTNND2 in the cell body of neuronal cells, and with CTNNB1 in the cell-cell contacts and plasma membrane of undifferentiated and differentiated neuroblastoma cells. Reversibly attached to the plasma membrane in an inactive form when complexed to dephosphorylated p35 or CDK5R2 (p39), p35 phosphorylation releases this attachment and activates CDK5. .; [Isoform 2]: Nucleus.

Tissue specificity [Isoform 1]: Ubiquitously expressed (PubMed:17009320, PubMed:19693690). Accumulates in cortical neurons (at protein level) (PubMed:17009320). ; [Isoform 2]: Expressed in the testis, skeletal muscle, colon, bone marrow and ovary.

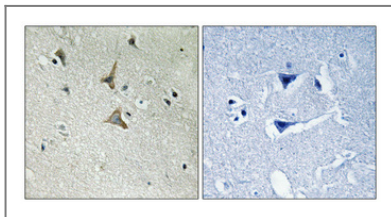
Function

Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Function:Probably involved in the control of the cell cycle. Interacts with D1 and D3-type G1 cyclins. Can phosphorylate histone H1, tau, MAP2 and NF-H and NF-M. Also interacts with p35 which activates the kinase.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase domain.,subcellular location:In axonal growth cone with extension to the peripheral lamellipodia.,subunit:Heterodimer of a catalytic subunit and a regulatory subunit (p35). Found in a trimolecular complex with CABLES1 and ABL1. Interacts with CABLES1 (By similarity). Interacts with AATK.,

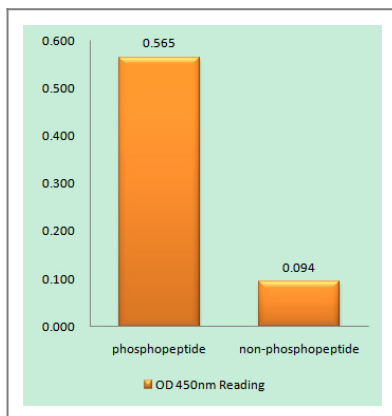
Validation Data



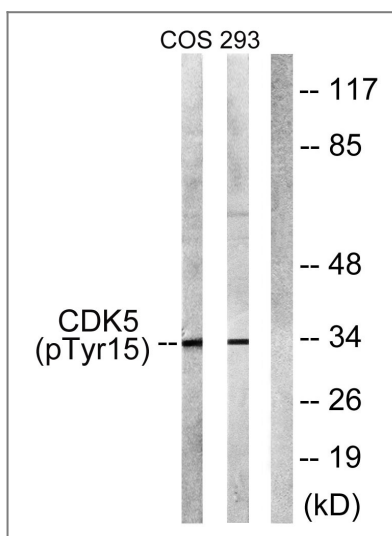
Western Blot analysis of HT29+PMA cells using Phospho-Cdk5 (Y15) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°C overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CDK5 (Phospho-Tyr15) Antibody



Western blot analysis of lysates from COS7 cells treated with EGF 200ng/ml 30' and 293 cells treated with H2O2 100u, 15mins, using CDK5 (Phospho-Tyr15) Antibody. The lane on the right is blocked with the phospho peptide.

Contact information

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product information:
**CDK5 (Phospho
Tyr15) Rabbit pAb**

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