

# Cdk5

Cat. # CM2361

Host Mouse Monoclonal IgG1

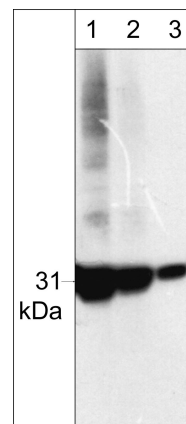
Size 100 µl

## Background:

Cyclin-dependent kinases (Cdks) are a family of serine/threonine kinases that require association with regulatory subunits known as cyclins for activation. In addition, post-translational phosphorylation and dephosphorylation events regulate Cdk activity. Phosphorylation of Thr-160 in the T loop by Cdk-activating kinase (CAK) is an obligatory step in kinase activation. By contrast, phosphorylation of the Thr-14 and Tyr-15 residues by the Wee1 family of dual specificity kinases is inhibitory for the Cdks, and dephosphorylation of these residues by the Cdc25 family of phosphatases coincides with Cdk activation. Alternatively, Cdk5 appears to require different mechanisms for activation. This Cdk is activated through association with specific activators, including p35, p39, and p67. Cdk5 is primarily activated in neuronal cells, and only c-Abl kinase, rather than Wee family members, have been shown to phosphorylate Tyr-15 to regulate its activity.

## References

- Poon, R.Y.C. et al. (1997) J Biol. Chem. 272( 9):5703.  
Zukerberg, L. R. (2000) Neuron 26:633.  
Lee, J.H. et al. (2008) J Biol. Chem. May 19 epub.



Western blot analysis of human HeLa cells. The blot was probed with anti-Cdk5 (CM2361) antibody at 1:250 (lane 1), 1:1000 (lane 2), and 1:4000 (lane 3).

## Immunogen:

This antibody was generated from a recombinant full-length human Cdk5 sequence.

## Applications:

|       |        |    |       |
|-------|--------|----|-------|
| WB    | 1:1000 | IP | 1:100 |
| ELISA | 1:2000 |    |       |
| ICC   | 1:100  |    |       |

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

## Related Products:

- CM2261 Cdk1 (N-terminal region) Mouse Monoclonal  
CM2311 Cdk1 (Tyr-15), phospho-specific [Conserved site] Mouse Monoclonal

## Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

## Specificity:

The antibody detects a 31 kDa\* band corresponding to Cdk5 on SDS-PAGE immunoblots of human SYF and HeLa cells, and in mouse brain tissue. The antibody does not detect other Cdk family members, such as Cdk1 and Cdk2.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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