### Phospho-CDK1-Y15 pAb

**Catalog No.**  AP0016  
**Applications**  WB, IHC, IF, IP  
**Category**  Observed MW  34kDa  
**Cross-reactivity**  Human, Mouse, Rat  
**Calculated MW**  27kDa/34kDa  
**Phosphorylated Antibodies**

### Immunogen Information
- **Immunogen**: A synthetic phosphorylated peptide around Y15 of human CDK1 (NP_001777.1).  
- **Gene ID**: 983  
- **Swiss prot**: P06493  
- **Synonyms**: CDK1; CDC2; CDC28A; P34CDC2; cyclin-dependent kinase 1

### Product Information
- **Source**: Rabbit  
- **Isotype**: IgG  
- **Purification method**: Affinity purification  
- **Storage**: Store at -20℃. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.

### Background
The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with this protein and function as regulatory subunits. The kinase activity of this protein is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of this protein also play important regulatory roles in cell cycle control. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

**Recommended Dilutions**

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<th>WB</th>
<th>IHC</th>
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<tbody>
<tr>
<td></td>
<td>1:500 - 1:1000</td>
<td>1:50 - 1:200</td>
<td>1:50 - 1:100</td>
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### Western blot analysis

**Western blot analysis of extracts of HT-29 and HeLa cells, using Phospho-CDK1-Y15 antibody (AP0016) at 1:1000 dilution.** HT-29 cells were treated by serum-starvation overnight. HeLa cells were treated by UV for 15-30 minutes. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 1min.

**Western blot analysis of extracts of NIH/3T3 cells, using phospho-STK4-T387 pAb (AP0016) at 1:1000 dilution or CDK1 antibody (A0220).** HeLa cells were treated by nocodazole (50 ng/ml) at 37℃ for 20 hours or Hydroxyurea (4 mM) at 37℃ for 20 hours. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.
Immunohistochemistry of paraffin-embedded mouse brain using Phospho-CDK1-Y15 antibody (AP0016) at dilution of 1:100 (40x lens).


Immunoprecipitation analysis of 200ug extracts of HT-29 cells, using 3 ug Phospho-CDK1-Y15 pAb (AP0016). Western blot was performed from the immunoprecipitate using Phospho-CDK1-Y15 pAb (AP0016) at a dilution of 1:1000. HT-29 cells were treated by Serum-starvation overnight at 37℃.