

Phospho-Tyr15 cdc2 Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1004

Specification

Phospho-Tyr15 cdc2 Antibody - Product Information

Application	WB
Primary Accession	P39951
Reactivity	Human, Xenopus
Predicted	Mouse, Rat, Zebrafish
Host	Rabbit
Clonality	polyclonal
Calculated MW	34 KDa

Phospho-Tyr15 cdc2 Antibody - Additional Information

Gene ID	54237
Gene Name	CDK1

Other Names

Cyclin-dependent kinase 1, CDK1, Cell division control protein 2 homolog, Cell division protein kinase 1, p34 protein kinase, Cdk1, Cdc2, Cdc2a, Cdkn1

Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Tyr15 conjugated to KLH.

Dilution

WB~~ 1:1000

Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Antibody Specificity

Specific for the ~38k cdc2 protein phosphorylated at Tyr15. Immunolabeling is blocked by the λ -phosphatase treatment.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-Tyr15 cdc2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

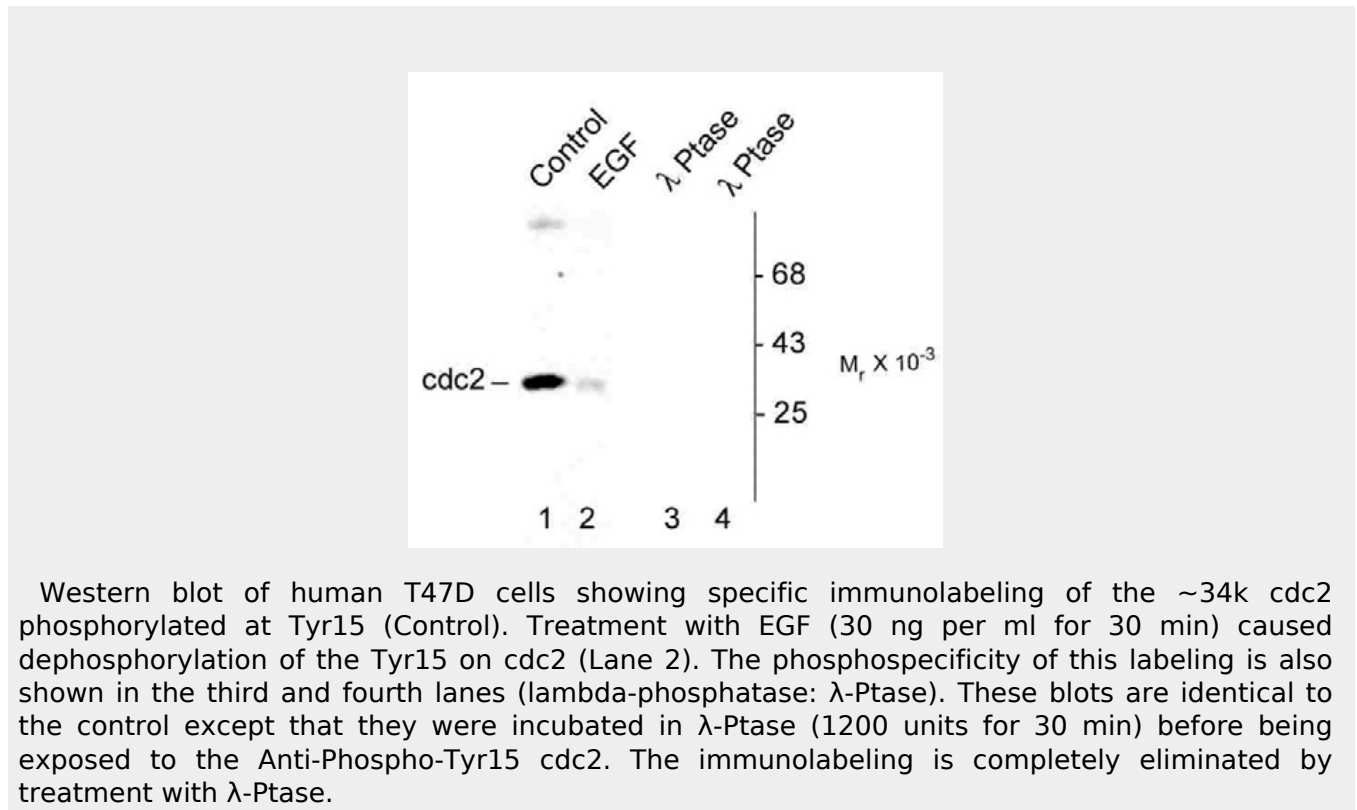
Blue Ice

Phospho-Tyr15 cdc2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-Tyr15 cdc2 Antibody - Images



Western blot of human T47D cells showing specific immunolabeling of the ~34k cdc2 phosphorylated at Tyr15 (Control). Treatment with EGF (30 ng per ml for 30 min) caused dephosphorylation of the Tyr15 on cdc2 (Lane 2). The phosphospecificity of this labeling is also shown in the third and fourth lanes (lambda-phosphatase: λ-Ptase). These blots are identical to the control except that they were incubated in λ-Ptase (1200 units for 30 min) before being exposed to the Anti-Phospho-Tyr15 cdc2. The immunolabeling is completely eliminated by treatment with λ-Ptase.

Phospho-Tyr15 cdc2 Antibody - Background

Cdc2 is a highly conserved protein serine kinase that plays a key role in regulation of the cell cycle (Maller, 1991). The ability of cdc2 to exercise control over the cell cycle is dependent upon the phosphorylation of Tyr15 in cdc2 (Nakamizo et al., 2002). cdc2 expression in brain has been linked to both neurogenesis and apoptosis (Konishi and Bonni, 2003; Dranovsky et al., 2001; Okano et al., 1996).

Phospho-Tyr15 cdc2 Antibody - References

- Dranovsky A, Vincent I, Gregori L, Schwarzman A, Colflesh D, Enghild J, Strittmatter W, Davies P, Goldgaber D (2001) cdc2 phosphorylation of nucleolin demarcates mitotic stages and Alzheimer's disease pathology. *Neurobiol Aging* 22:517-528.
- Konishi Y, Bonni A (2003) The E2F-cdc2 cell-cycle pathway specifically mediates activity deprivation-induced apoptosis of postmitotic neurons. *J Neurosci* 23:1649-1658.
- Maller JL (1991) Mitotic control. *Curr Opin Cell Biol* 3:269-275.
- Nakamizo A, Inamura T, Inoha S, Amano T, Ochi H, Ikezaki K, Fukui M (2002) Suppression of cdc2

dephosphorylation at the tyrosine 15 residue during nitrosourea-induced G2M phase arrest in glioblastoma cell lines. *J Neurooncol* 59:7-13.

Okano HJ, Pfaff DW, Gibbs RB (1996) Expression of EGFR-, p75NGFR-, and PSTAIR (cdc2)-like immunoreactivity by proliferating cells in the adult rat hippocampal formation and forebrain. *Dev Neurosci* 18:199-209.