



cdc2, phosphorylated (Thr14)

Catalog number

C2549-48

Supplier

United States Biological

The entry of eukaryotic cells into mitosis is regulated by cdc2 kinase activation, a process controlled at several steps including cyclin binding and phosphorylation of cdc2 at Thr161 (1). However, the critical regulatory step in activating cdc2 during progression into mitosis appears to be dephosphorylation of cdc2 at Tyr15 and Thr14 (2). Phosphorylation at Thr14 and Tyr15 resulting in inhibition of cdc2 can be carried out by Wee1 and Myt1 protein kinases (3,4). The cdc25 phosphatase may be responsible for removal of phosphates at Thr14 and Tyr15 and subsequent activation of cdc2 (1,5).

Applications

Suitable for use in Western Blot. Other applications have not been tested.

Recommended Dilutions

Western Blot: 1:1000, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.
Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Synthetic phosphopeptide corresponding to residues surrounding Thr14 of human cdc2. Species sequence homology: mouse, rat, bovine, D. melanogaster and xenopus (100%)

Formulation

Supplied as a liquid in 10mM sodium HEPES, pH 7.5, 150mM sodium chloride, 0.1mg/ml BSA, 50% glycerol.

Purity

Purified by Protein A and peptide affinity chromatography.

Specificity

Recognizes endogenous levels of cdc2 (CDK1) only when phosphorylated at Thr14. Based on sequence similarity, the antibody may cross-react with CDK2 and CDK3. Species crossreactivity: monkey and hamster.

Product Type

Pab

Source



human

Isotype

IgG

Grade

Affinity Purified

Applications

WB

Crossreactivity

Hm Hu Mk

Storage

-20°C

MW

34

BSA Free

Phosphorylated

Reference

1. Atherton-Fessler, S. et al. (1994) Mol. Biol. Cell. 5, 989-1001. Norbury, C. et al. (1991) EMBO. J. 10, 3321-3329. McGowan, C.H. and Russell, P. (1993) EMBO J. 12, 75-85. Wells, N.J. et al. (1999) J. Cell. Sci. 112, 3361-3371. Hunter, T. (1995) Cell 80, 225-236.