

CDC25C Ab-1 (Clone 25C14; same as TC-14)

Mouse Monoclonal Antibody

Cat. #MS-751-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-751-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-751-PCL (0.1ml) (Positive Control for Western Blot)

Description: Cyclin-dependent kinases can be activated by CDC25, which removes inhibitory phosphates from tyrosine and threonine residues. At least three CDC25 genes (CDC25A, CDC25B, and CDC25C) have been identified in humans. Whereas CDC25A and CDC25B are expressed throughout the cell cycle, with peak expression in G1 for CDC25A and in both G1-S-phase and G2 for CDC25B, CDC25C is predominantly expressed in G2.

Mol. Wt. of Antigen: 53-56kDa

Epitope: aa1-150

Species Reactivity: Human. Does not react with mouse and rat. Others-not known.

Clone Designation: 25C14 (same as TC-14)

Ig Isotype / Light Chain: IgG₁ / κ

Immunogen: Recombinant human CDC25C protein.

Applications and Suggested Dilutions:

- Immunofluorescence
- Immunohistology (Not Suitable)
- Immunoprecipitation (Denatured verified) (Use Protein G) (Ab 2µg/mg protein lysate)
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: HeLa, HT29, or LS174T cells.

Cellular Localization: Cytoplasmic

Supplied As: 200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Suggested References:

1. Zwicker J, Muller R: Prog Cell Cycle Res 1995;1:91-99.
2. Sartor H, et al. Genomics 1992 13(3):911-912.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

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1. Taviaux SA, Demaille JG: Localization of human cell cycle regulatory genes CDC25C to 5q31 and WEE1 to 11p15.3-11p15.1 by fluorescence in situ hybridization. *Genomics* 1993 Jan;15(1):194-196.
2. Strausfeld U, Fernandez A, Capony JP, Girard F, Lautredou N, Derancourt J, Labbe JC, Lamb NJ: Activation of p34cdc2 protein kinase by microinjection of human cdc25C into mammalian cells. Requirement for prior phosphorylation of cdc25C by p34cdc2 on sites phosphorylated at mitosis. *J Biol Chem* 1994 Feb 25;269(8):5989-6000.
3. Peng CY, Graves PR, Ogg S, Thoma RS, Byrnes MJ 3rd, Wu Z, Stephenson MT, Piwnica-Worms H: C-TAK1 protein kinase phosphorylates human Cdc25C on serine 216 and promotes 14-3-3 protein binding. *Cell Growth Differ* 1998;9(3):197-208.
4. Zwicker J, Gross C, Lucibello FC, Truss M, Ehlert F, Engeland K, Muller R: Cell cycle regulation of cdc25C transcription is mediated by the periodic repression of the glutamine-rich activators NF-Y and Sp1. *Nucleic Acids Res* 1995;23(19):3822-3830.
5. Korner K, Wolfrain LA, Lucibello FC, Muller R: Characterization of the TATA-less core promoter of the cell cycle-regulated cdc25C gene. *Nucleic Acids Res* 1997 Dec 15;25(24):4933-4939.
6. Wu W, Fan YH, Kemp BL, Walsh G, Mao L: Overexpression of cdc25A and cdc25B is frequent in primary non-small cell lung cancer but is not associated with overexpression of c-myc. *Cancer Res* 1998 Sep 15;58(18):4082-4085.
7. Kudo Y, Yasui W, Ue T, Yamamoto S, Yokozaki H, Nikai H, Tahara E: Overexpression of cyclin-dependent kinase-activating CDC25B phosphatase in human gastric carcinomas. *Jpn J Cancer Res* 1997 Oct;88(10):947-952.

