Thermo SCIENTIFIC

DATA SHEET
Rev 072808J

Cdk2 Ab-1 (Clone 2B6)

Mouse Monoclonal Antibody

Cat. #MS-459-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-459-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-459-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)
Cat. #MS-459-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-459-PCS (5 Slides) (Positive Control for Histology)
Cat. #MS-459-PCL (0.1ml) (Positive Control for Western Blot)

Description: $p33^{cdk2}$ associates with cyclin A in human cells. Kinase activity associated with cyclin A-cdc2 is found only in G_2-phase. Cdk2 also complexes with cyclins E, D1, and D3. Cyclin E-cdk2 kinase is active in the G_1- and S-phases of the cell cycle and is important (as does cyclin A-cdk2) for the progression from G_1-to S-phase. The levels of cyclin A-cdk2 is maximal at the G_1/S transition and both cdk2 and cyclin A are found associated with DNA in the initiation complex during replication. Rb protein acts as substrate for cdk2-cyclin E and/or cdk2-cyclin A *in vivo*. Cdk2 is activated and specifically localized to the nucleus during late G_1-, S-, and G_2-phase.

Mol. Wt. of Antigen: 33kDa

Epitope: Not determined

Species Reactivity: Human, Mouse, and Rat.

Clone Designation: 2B6

Ig Isotype: IgG_{2b}

Immunogen: Human recombinant cdk2 protein.

Applications and Suggested Dilutions:

- Immunofluorescence
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin)
  (Use Ab at 1:25-50 for 60 min at RT using UltraVision LP system)

* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 1mM EDTA, pH 8.0, (***NEOMARKERS'*** Cat. #AP-9004), for 10-20 min followed by cooling at RT for 20 min.]

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

Positive Control: HeLa cells. Tonsil.

Cellular Localization: Cytoplasmic and nuclear

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.

Supplied As: 200µg/ml of antibody purified from ascites fluid by Protein A 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. Or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Suggested References:

1. Akiyama T; et al. Cancer Research, 1997, 57(8):1495-501.
2. Bresnahan WA; et al. Journal of General Virology, 1997 Aug, 78 (Pt 8):1993-7.

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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Anatomical Pathology
46360 Fremont Blvd.
Fremont, CA 94538, USA
Tel: 1-510-771-1560
Fax: 1-510-771-1570
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Anatomical Pathology
93-96 Chadwick Road, Astmoor
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Fax: 44-1928-562627
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Additional Suggested References:

1. Cannella D; Roberts JM; Fotedar R. Association of cyclin A and cdk2 with SV40 DNA in replication initiation complexes is cell cycle dependent. Chromosoma, 1997 Apr, 105(6):349-59.
2. De Luca A; De Maria R; Baldi A; Trotta R; Facchiano F; Giordano A; Testi R; Condorelli G. Fas-induced changes in cdc2 and cdk2 kinase activity are not sufficient for triggering apoptosis in HUT-78 cells. Journal of Cellular Biochemistry, 1997 Mar 15, 64(4):579-85.
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