
anti-Cdk4

Cat #: HM1085
Mouse monoclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Cdk4 is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of *S. cerevisiae* cdc28, and *S. pombe* cdc2. It is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity of Cdk4 is restricted to the G1-S phase, which is controlled by the regulatory subunits D-type cyclins and CDK inhibitor p16(INK4a). Cdk4 was shown to be responsible for the phosphorylation of retino blastoma gene product (Rb). Mutations in Cdk4 as well as in its related proteins including D-type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenesis of a variety of cancers.

SPECIFICITY

The antibody reacts with Cdk4 of mouse, rat and human origin by Western blotting, immunoprecipitation and immunohistochemistry.

IMMUNOGEN

Full length recombinant human Cdk4 protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCE

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3. Xiong, Y., Zhang, H., and Beach D. 1992. D type cyclins associate with multiple protein kinases and the DNA replication and repair factor PCNA. *Cell* 71: 505-514.
4. Serrano, M., Hannon, G.J. and Beach, D. 1993. A new regulatory motif in cell-cycle control causing specific inhibition of cyclin D/CDK4. *Nature* 366, 704-707.
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6. Lazarov, M., Kubo, Y., Cai, T., Dajee, M., Tarutani, M., Lin, Q., Fang, M., Tao, S., Green, C.L. and Khavari, P.A. 2002. CDK4 coexpression with Ras generates malignant human epidermal tumorigenesis. *Nat. Med.* 8, 1105-1114.
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