

Anti-Cdk4 antibody ab226474

7 References **4 图像**

概述

产品名称	Anti-Cdk4抗体
描述	兔多克隆抗体to Cdk4
宿主	Rabbit
经测试应用	适用于: WB, IP, IHC-P
种属反应性	与反应: Human
免疫原	Synthetic peptide within Human Cdk4 aa 253-303. The exact sequence is proprietary. Database link: P11802
阳性对照	WB: HeLa, HEK-293T and Jurkat cell lysate. IP: HEK-293T cell lysate. IHC: Human lung cancer and breast carcinoma tissue.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7 Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate
纯度	pH 7 to 8 Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee

Abpromise™ 承诺保证使用ab226474于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/2000 - 1/10000. Predicted molecular weight: 34 kDa.
IP		Use at 2-10 µg/mg of lysate.
IHC-P		1/500 - 1/2000. Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections.

靶标

功能

Ser/Thr-kinase component of cyclin D-CDK4 (DC) complexes that phosphorylate and inhibit members of the retinoblastoma (RB) protein family including RB1 and regulate the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complexes and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also phosphorylates SMAD3 in a cell-cycle-dependent manner and represses its transcriptional activity. Component of the ternary complex, cyclin D/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.

疾病相关

Defects in CDK4 are a cause of susceptibility to cutaneous malignant melanoma type 3 (CMM3) [MIM:609048]. Malignant melanoma is a malignant neoplasm of melanocytes, arising de novo or from a pre-existing benign nevus, which occurs most often in the skin but also may involve other sites.

序列相似性

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.
Contains 1 protein kinase domain.

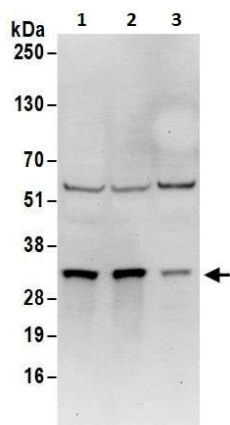
翻译后修饰

Phosphorylation at Thr-172 is required for enzymatic activity. Phosphorylated, in vitro, at this site by CCNH-CDK7, but, in vivo, appears to be phosphorylated by a proline-directed kinase. In the cyclin D-CDK4-CDKN1B complex, this phosphorylation and consequent CDK4 enzyme activity, is dependent on the tyrosine phosphorylation state of CDKN1B. Thus, in proliferating cells, CDK4 within the complex is phosphorylated on Thr-172 in the T-loop. In resting cells, phosphorylation on Thr-172 is prevented by the non-tyrosine-phosphorylated form of CDKN1B.

细胞定位

Cytoplasm. Nucleus. Membrane. Cytoplasmic when non-complexed. Forms a cyclin D-CDK4 complex in the cytoplasm as cells progress through G(1) phase. The complex accumulates on the nuclear membrane and enters the nucleus on transition from G(1) to S phase. Also present in nucleoli and heterochromatin lumps. Colocalizes with RB1 after release into the nucleus.

图片



Western blot - Anti-Cdk4 antibody (ab226474)

All lanes : Anti-Cdk4 antibody (ab226474) at 0.1 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate

Lane 3 : Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate

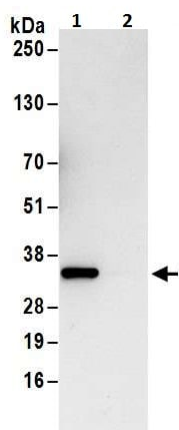
Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 34 kDa

Exposure time: 30 seconds



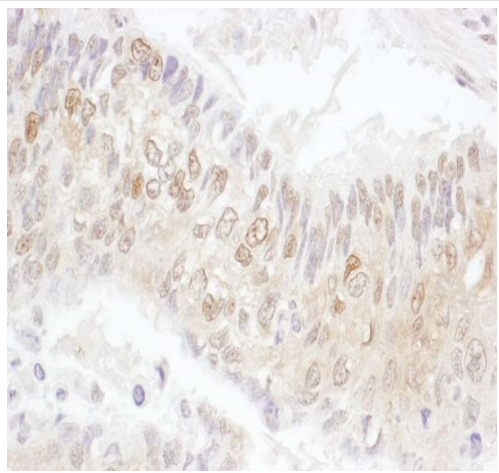
Immunoprecipitation - Anti-Cdk4 antibody
(ab226474)

Cdk4 was immunoprecipitated from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate (1.0 mg for IP, 20% of IP loaded) with ab226474 at 6 µg/mg lysate. Western blot was performed from the immunoprecipitate using a different rabbit anti-Cdk4 antibody at 1 µg/ml.

Lane 1: ab226474 IP in HEK-293T whole cell lysate.

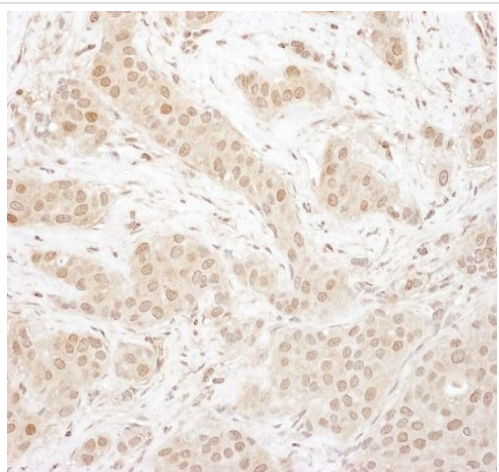
Lane 2: Control IgG IP in HEK-293T whole cell lysate.

Detection: Chemiluminescence with exposure time of 10 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk4 antibody (ab226474)

Formalin-fixed, paraffin-embedded human lung cancer tissue stained for Cdk4 using ab226474 at 1:1000 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cdk4 antibody (ab226474)

Formalin-fixed, paraffin-embedded human breast carcinoma tissue stained for Cdk4 using ab226474 at 1:1000 dilution in immunohistochemical analysis.

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