# abcam

# Product datasheet

# Cdk4 overexpression 293T lysate (whole cell) ab94290

# 2 图像

#### 概述

产品名称 Cdk4 overexpression 293T裂解物(whole cell)

常规说明 ab94290 is a 293T cell transfected lysate in which Human Cdk4 has been transiently over-

expressed using a pCMV-Cdk4 plasmid. The lysate is provided in 1X Sample Buffer.

经测试应用 适用于: WB

#### 性能

Mycoplasma free

Yes

形式

Liquid

存放说明

Shipped on dry ice. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

存储溶液

Constituents: 0.01% Bromophenol blue, 2.3% Beta mercaptoethanol, 2% Sodium lauryl sulfate,

0.788% Tris HCI, 10% Glycerol (glycerin, glycerine)

背景

Function: 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 cellcycle 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 mitogenenic 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. Disease: 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. Similarity: Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily. Contains 1 protein kinase domain. PTM: 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.

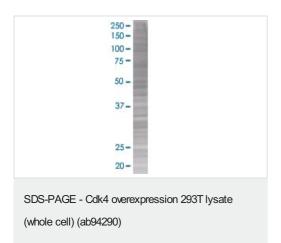
# The Abpromise guarantee

# Abpromise™承诺保证使用ab94290于以下的经测试应用

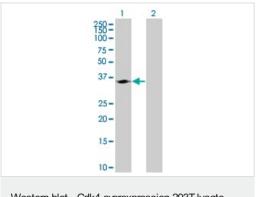
"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use at an assay dependent dilution.

#### 图片



ab94290 at 15µg/lane on an SDS-PAGE gel.



Western blot - Cdk4 overexpression 293T lysate (whole cell) (ab94290)

All lanes: Anti-Cdk4 antibody (ab54515) at 1/500 dilution

Lane 1: Cdk4 overexpression 293T lysate (whole cell) (ab94290)

Lane 2: 293T non-transfected lysate

Lysates/proteins at 25 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-mouse IgG (H and L) HRP conjugated at 1/2500 dilution

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