abcam

Product datasheet

Anti-p27 KIP 1 antibody [EPFHCR16] ab92741

敲除验证 重组 RabMAb

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概述

产品名称	Anti-p27 KIP 1抗体[EPFHCR16]
描述	兔单克隆抗体[EPFHCR16] to p27 KIP 1
宿主	Rabbit
经测试应用	**适用于:** WB, IHC-P **不适用于:** Flow Cyt,ICC/IF or IP
种属反应性	**与反应:** Mouse, Rat
免疫原	Recombinant fragment corresponding to Mouse p27 KIP 1.
阳性对照	WB: NIH3T3, C6 and Neuro 2a cell lysates. IHC-P: Rat testis, mouse testis, lung and thymus tissues.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Human: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.31% Sodium citrate, 0.175% Sodium chloride, 0.0172% EDTA, 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EPFHCR16
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab92741**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		1/1000 - 1/5000. Detects a band of approximately 27 kDa (predicted molecular weight: 22 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

应用说明 Is unsuitable for Flow Cyt,ICC/IF or IP.

靶标

功能 Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

组织特异性 Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney.

疾病相关 Defects in CDKN1B are the cause of multiple endocrine neoplasia type 4 (MEN4) [MIM:610755]. Multiple endocrine neoplasia (MEN) syndromes are inherited cancer syndromes of the thyroid. MEN4 is a MEN-like syndrome with a phenotypic overlap of both MEN1 and MEN2.

序列相似性 Belongs to the CDI family.

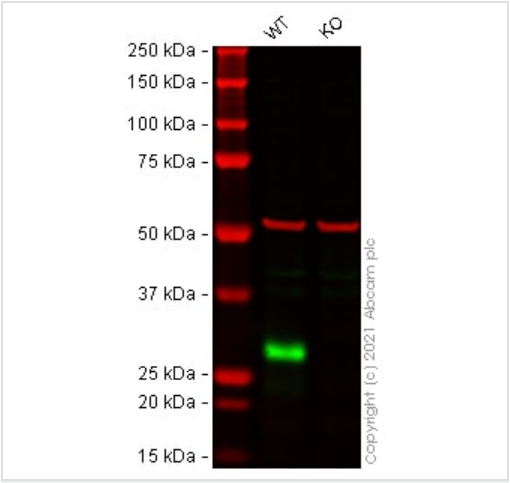
结构域 A peptide sequence containing only AA 28-79 retains substantial Kip1 cyclin A/CDK2 inhibitory activity.

翻译后修饰 Phosphorylated; phosphorylation occurs on serine, threonine and tyrosine residues. Phosphorylation on Ser-10 is the major site of phosphorylation in resting cells, takes place at the G(0)-G(1) phase and leads to protein stability. Phosphorylation on other sites is greatly enhanced by mitogens, growth factors, cMYC and in certain cancer cell lines. The phosphorylated form found in the cytoplasm is inactivate. Phosphorylation on Thr-198 is required for interaction with 14-3-3 proteins. Phosphorylation on Thr-187, by CDK2 leads to protein ubiquitination and proteasomal degradation. Tyrosine phosphorylation promotes this process. Phosphorylation by PKB/AKT1 can be suppressed by LY294002, an inhibitor of the catalytic subunit of PI3K. Phosphorylation on Tyr-88 and Tyr-89 has no effect on binding CDK2, but is required for binding CDK4.
Dephosphorylated on tyrosine residues by G-CSF.
Ubiquitinated; in the cytoplasm by the KPC complex (composed of RNF123/KPC1 and UBAC1/KPC2) and, in the nucleus, by SCF(SKP2). The latter requires prior phosphorylation on Thr-187. Ubiquitinated; by a TRIM21-containing SCF(SKP2)-like complex; leads to its degradation.
Subject to degradation in the lysosome. Interaction with SNX6 promotes lysosomal degradation.

细胞定位

Nucleus. Cytoplasm. Endosome. Nuclear and cytoplasmic in quiescent cells. AKT-or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and cell cycle progression. Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89. Colocalizes at the endosome with SNX6 and this leads to lysosomal degradation.

图片



Western blot - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

All lanes : Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741) at 1/1000 dilution

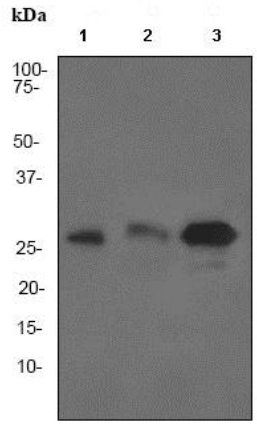
Lane 1 : Wild-type RAW 264.7 cell lysate
Lane 2 : CDKN1B knockout RAW 264.7 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 22 kDa
Observed band size: 28 kDa

False colour image of Western blot: Anti-p27 KIP 1 antibody [EPFHCR16] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab92741 was shown to bind specifically to p27 KIP 1. A band was observed at 28 kDa in wild-type RAW 264.7 cell lysates with no signal observed at this size in CDKN1B knockout cell line **ab281619** (knockout cell lysate **ab282970**). To generate this image, wild-type and CDKN1B knockout RAW 264.7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

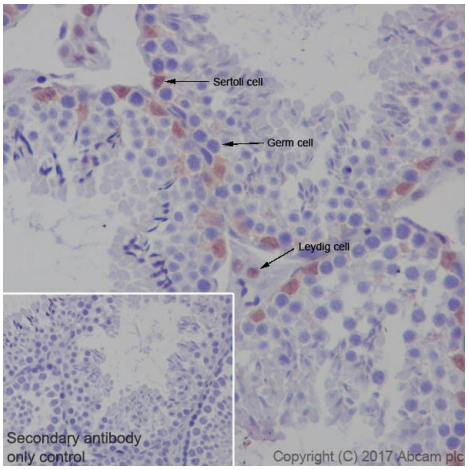
All lanes : Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741) at 1/1000 dilution

Lane 1 : NIH/3T3 cell lysate
Lane 2 : C6 cell lysate
Lane 3 : Neuro-2a cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit HRP-conjugated at 1/2000 dilution

Predicted band size: 22 kDa
Observed band size: 27 kDa

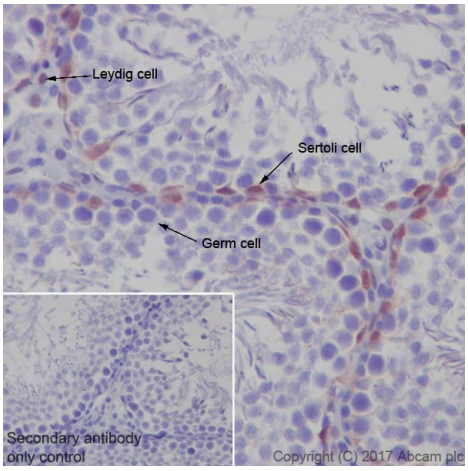


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling p27 KIP 1 with ab92741 at 1/5000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining in Leydig and Sertoli cells and Leydig cells of mouse testis is observed (PMID: 10098522). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody.

Heat mediated antigen retrieval was performed using Universal HIER antigen retrieval reagent (10X) (**ab208572**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

Immunohistochemical analysis of paraffin-embedded rat testis tissue labeling p27 KIP 1 with ab92741 at 1/5000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining in Leydig and Sertoli cells and Leydig cells of rat testis is observed (PMID: 10098522). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody.

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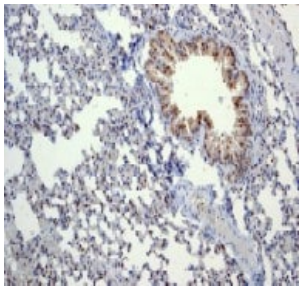
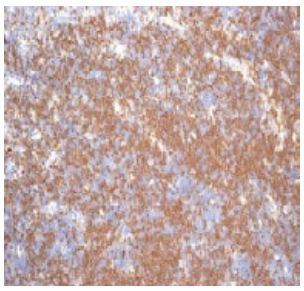


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

ab92741 at 1/100 dilution staining p27 KIP in Mouse lung by Immunohistochemistry, Paraffin-embedded tissue.

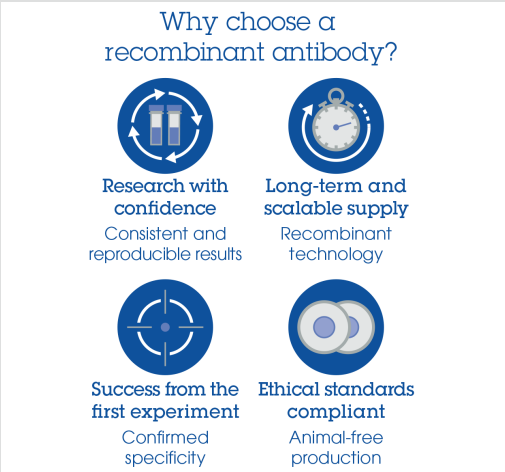
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

ab92741 at 1/100 dilution staining p27 KIP in Mouse thymus by Immunohistochemistry, Paraffin-embedded tissue.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

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