

### Anti-p27 KIP 1 antibody [EPFHCR16] ab92741

KO 評価済 リコンビナント RabMAb

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#### 製品の概要

製品名	Anti-p27 KIP 1 antibody [EPFHCR16]
製品の詳細	Rabbit monoclonal [EPFHCR16] to p27 KIP 1
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, IHC-P <b>適用なし:</b> Flow Cyt, ICC/IF or IP
種交差性	<b>交差種:</b> Mouse, Rat
免疫原	Recombinant fragment corresponding to Mouse p27 KIP 1.
ポジティブ・コントロール	WB: NIH3T3, C6 and Neuro 2a cell lysates. IHC-P: Rat testis, mouse testis, lung and thymus tissues.
特記事項	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Human: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
バッファー	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
精製度	Protein A purified

ポリ/モノ	モノクローナル
クローン名	EPFHCR16
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、次のテスト済みアプリケーションにおけるab92741の使用に適用されます**  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
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.

**追加情報** Is unsuitable for Flow Cyt, ICC/IF or IP.

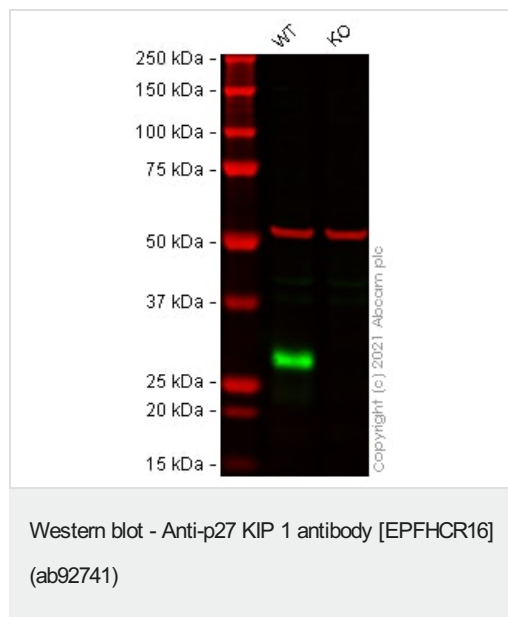
## ターゲット情報

<b>機能</b>	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 stoichiometry.
<b>組織特異性</b>	Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney.
<b>関連疾患</b>	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.
<b>配列類似性</b>	Belongs to the CDI family.
<b>ドメイン</b>	A peptide sequence containing only AA 28-79 retains substantial Kip1 cyclin A/CDK2 inhibitory activity.
<b>翻訳後修飾</b>	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.

## 細胞内局在

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.

## 画像



**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

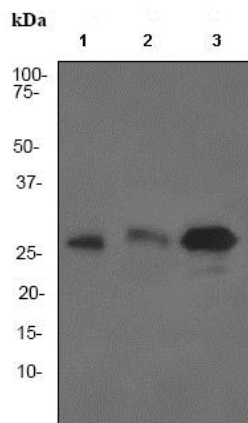
Lysates/proteins at 20 µg per lane.

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<sup>®</sup> 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<sup>®</sup> 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 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

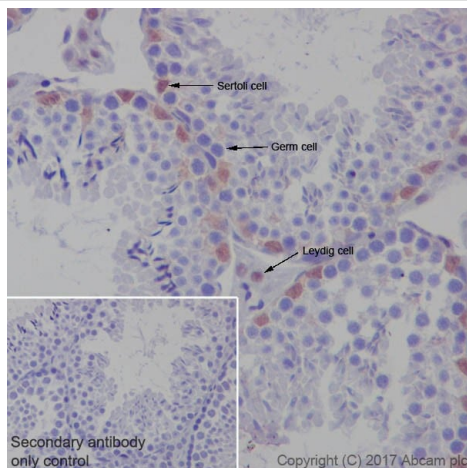
Lysates/proteins at 10 µg per lane.

### Secondary

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

**Predicted band size:** 22 kDa

**Observed band size:** 27 kDa

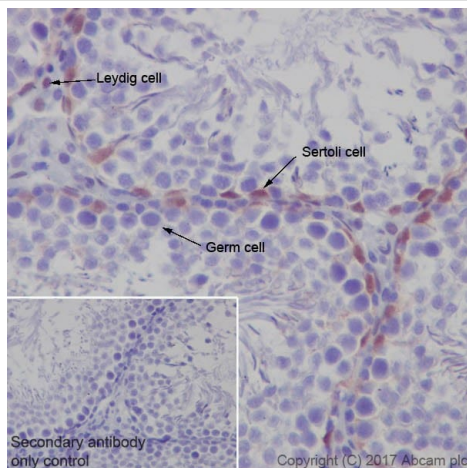


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

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](#)).

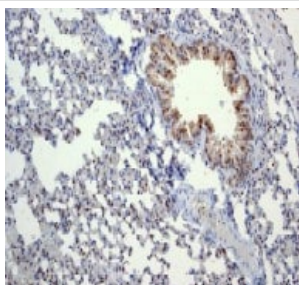


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [EPFHCR16] (ab92741)

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.

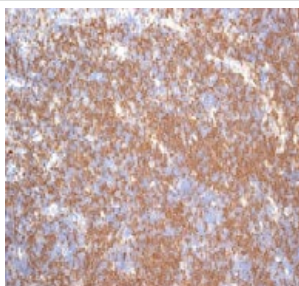
Heat mediated antigen retrieval was performed using Universal HIER antigen retrieval reagent (10X) ([ab208572](#)).



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

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.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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