abcam

Product datasheet

Anti-p27 KIP 1 (phospho T157) antibody ab85047

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概述

产品名称	Anti-p27 KIP 1 (phospho T157)抗体
描述	兔多克隆抗体to p27 KIP 1 (phospho T157)
宿主	Rabbit
经测试应用	**适用于:** IHC-P, ICC/IF, WB
种属反应性	**与反应:** Human **预测可用于:** Cat, Dog, Pig
免疫原	Synthetic peptide corresponding to Human p27 KIP 1 aa 150 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as **ab97604**)
阳性对照	This antibody gave a positive signal in the following whole cell lysates: HeLa; Jurkat; Caco2; MCF7.
常规说明	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. 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

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 or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab85047**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
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 22 kDa).

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 (phospho T157) antibody (ab85047)

All lanes : Anti-p27 KIP 1 (phospho T157) antibody (ab85047) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 10 µg
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate at 10 µg
Lane 3 : Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate at 10 µg
Lane 4 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate at 10 µg
Lane 5 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with Human p27 KIP 1 (phospho T157) peptide (**ab97604**) at 1 µg/ml
Lane 6 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate with Human p27 KIP 1 (phospho T157) peptide (**ab97604**) at 1 µg/ml
Lane 7 : Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate with Human p27 KIP 1 (phospho T157) peptide (**ab97604**) at 1 µg/ml
Lane 8 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate with Human p27 KIP 1 (phospho T157) peptide (**ab97604**) at 1 µg/ml
Lane 9 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with p27 KIP 1 peptide (**ab116623**) at 1 µg/ml
Lane 10 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate with p27 KIP 1 peptide (**ab116623**) at 1 µg/ml
Lane 11 : Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate with p27 KIP 1 peptide (**ab116623**) at 1 µg/ml
Lane 12 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate with p27 KIP 1 peptide (**ab116623**) at 1 µg/ml

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed

(HRP) at 1/3000 dilution

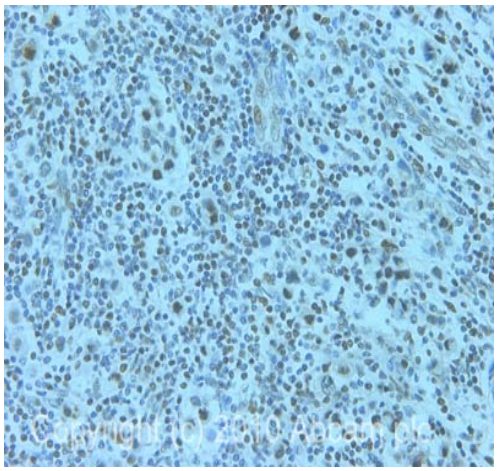
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 22 kDa
Observed band size: 32 kDa
Additional bands at: 100 kDa, 75 kDa. We are unsure as to the identity of these extra bands.

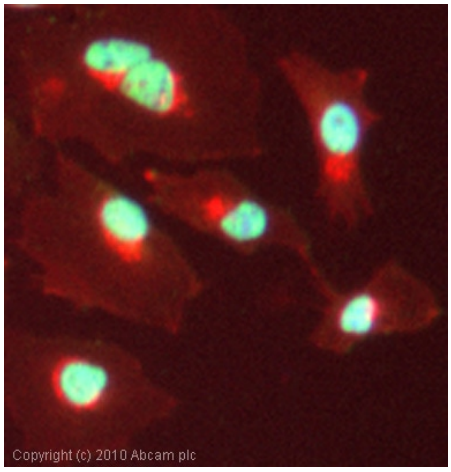
Exposure time: 2 minutes

The 32kDa band observed is comparable to the molecular weight seen with other commercially available antibodies to Human Cyclin-dependent kinase inhibitor 1B (p27 KIP 1).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 (phospho T157) antibody (ab85047)

IHC image of p27 KIP 1 (phospho T157) staining in human breast carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab85047, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX



Immunocytochemistry/ Immunofluorescence - Anti-p27 KIP 1 (phospho T157) antibody (ab85047)

ICC/IF image of ab85047 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab85047, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% PFA fixed (10 min) Hek293, HepG2 and MCF7 cells at 5µg/ml.

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