abcam

Product datasheet

Anti-p21 antibody [CIP1/823] - BSA and Azide free ab212247

敲除验证

1 References 5 图像

概述

产品名称	Anti-p21抗体[CIP1/823] - BSA and Azide free
描述	小鼠单克隆抗体[CIP1/823] to p21 - BSA and Azide free
宿主	Mouse
经测试应用	**适用于:** WB, IHC-P, ICC
种属反应性	**与反应:** Human **不与反应:** Mouse, Rat
免疫原	Recombinant full length protein corresponding to Human p21 aa 1 to the C-terminus. NCBI Accession No. 370771. Database link: **P38936** Run BLAST with Run BLAST with
阳性对照	ICC: HeLa cells; WB: HeLa whole cell lysate; IHC-P: Skin, colon, breast carcinoma, lung squamous cell carcinoma, and bladder carcinoma tissues.
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 long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Constituent: 100% PBS
无载体	是
纯度	Protein A/G purified

克隆	单克隆
克隆编号	CIP1/823
同种型	IgG2a
轻链类型	kappa

应用

The Abpromise guarantee Abpromise™承诺保证使用ab212247于以下的经测试应用

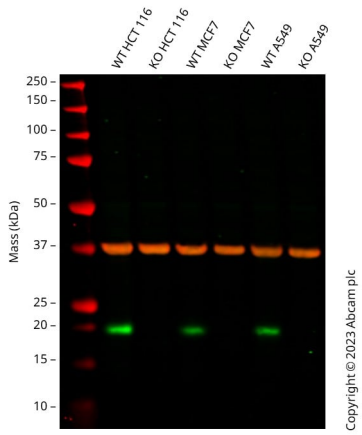
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 21 kDa (predicted molecular weight: 18 kDa).
IHC-P		Use a concentration of 2 - 4 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC		Use a concentration of 1 - 2 µg/ml.

靶标

功能	May be the important intermediate by which p53/TP53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions in the nuclear localization and assembly of cyclin D-CDK4 complex and promotes its kinase activity towards RB1. At higher stoichiometric ratios, inhibits the kinase activity of the cyclin D-CDK4 complex.
组织特异性	Expressed in all adult human tissues, with 5-fold lower levels observed in the brain.
序列相似性	Belongs to the CDI family.
结构域	The PIP-box K+4 motif mediates both the interaction with PCNA and the recuitment of the DCX(DTL) complex: while the PIP-box interacts with PCNA, the presence of the K+4 submotif, recruits the DCX(DTL) complex, leading to its ubiquitination. The C-terminal is required for nuclear localization of the cyclin D-CDK4 complex.
翻译后修饰	Phosphorylation of Thr-145 by Akt or of Ser-146 by PKC impairs binding to PCNA. Phosphorylation at Ser-114 by GSK3-beta enhances ubiquitination by the DCX(DTL) complex. Ubiquitinated by MKRN1; leading to polyubiquitination and 26S proteasome-dependent degradation. Ubiquitinated by the DCX(DTL) complex, also named CRL4(CDT2) complex, leading to its degradation during S phase or following UV irradiation. Ubiquitination by the DCX(DTL) complex is essential to control replication licensing and is PCNA-dependent: interacts with PCNA via its PIP-box, while the presence of the containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to its degradation.
细胞定位	Cytoplasm. Nucleus.

图片



Western blot - Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247)

All lanes : Anti-p21 antibody [CIP1/823] (**ab220206**) at 1 µg/ml

Lane 1 : Wild-type HCT 116 cell lysate
Lane 2 : CDKN1A knockout HCT 116 cell lysate
Lane 3 : Wild-type MCF7 cell lysate
Lane 4 : CDKN1A knockout MCF7 cell lysate
Lane 5 : Wild-type A549 cell lysate
Lane 6 : CDKN1A knockout A549 cell lysate

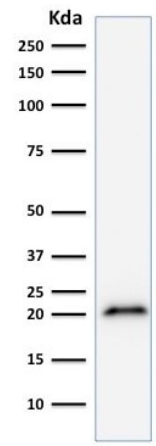
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 18 kDa
Observed band size: 21 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab220206**).

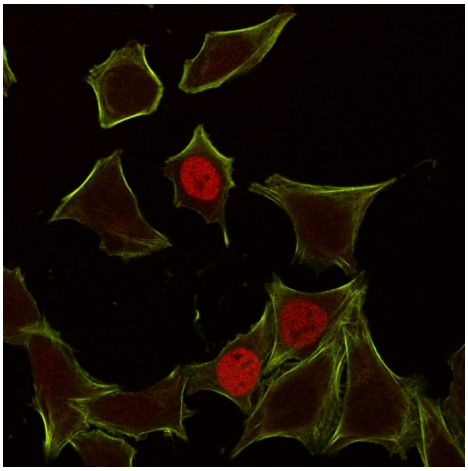
Western blot: Anti-CDKN1A antibody [CIP1/823] (**ab220206**) staining at 1 ug/ml, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (**ab181602**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab220206** was shown to bind specifically to CDKN1A. A band was observed at 21 kDa in wild-type cell lysates with no signal observed at this size in CDKN1A knockout cell lines. To generate this image, wild-type and CDKN1A knockout cell lysates were analysed. CDKN1A knockout cell lines in HCT 116 (**ab288187**), MCF7 (**ab288200**) and A549 (**ab288213**) backgrounds were used. 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-Mouse IgG H&L 800CW and Goat anti-Rabbit IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247)

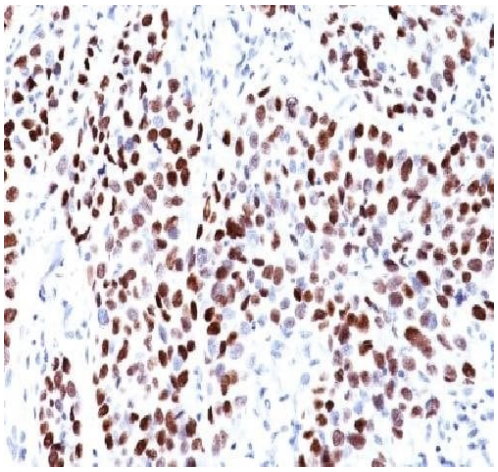
Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247) at 2 µg/ml + HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Predicted band size: 18 kDa
Observed band size: 21 kDa



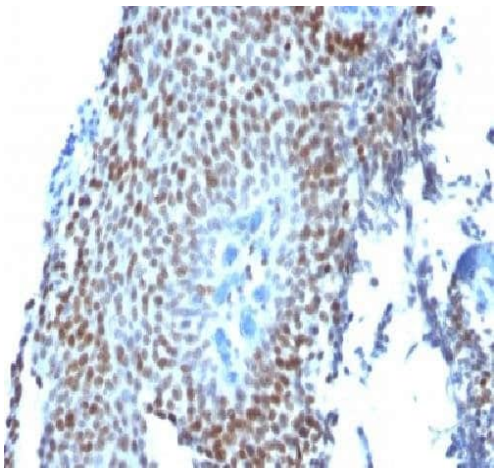
Immunocytochemistry - Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247)

Immunocytochemistry analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling p21 with ab212247 followed by Goat anti-Mouse IgG-CF555 (Red). Membrane stained with Phalloidin 488 (Green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247)

Immunohistochemical analysis of formalix-fixed paraffin-embedded Human lung squamous cell carcinoma tissue, labeling p21 using ab212247 at 4 µg/mL.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p21 antibody [CIP1/823] - BSA and Azide free (ab212247)

Immunohistochemical analysis of formalix-fixed paraffin-embedded Human bladder carcinoma tissue, labeling p21 using ab212247 at 4 µg/mL.

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