abcam

Product datasheet

Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free ab228877

リコンビナント RabMAb

画像数 4

製品の概要

製品名	Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EP233(2)Y] to p27 KIP 1 (phospho S10) - BSA and Azide free
由来種	Rabbit
特異性	This antibody detects p27 KIP 1 phosphorylated at Serine 10. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
アプリケーション	**適用あり:** WB, IP, IHC-P, Dot blot **適用なし:** Flow Cyt or ICC/IF
種交差性	**交差種:** Mouse, Rat, Human, Monkey
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	IP: MCF7 whole cell lysate; IHC: Human colon cancer tissue; WB: HeLa, PC-12, and NIH/3T3.
特記事項	ab228877 is the carrier-free version of **ab62364**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.20 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EP233(2)Y
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ab228877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		Use at an assay dependent concentration. Detects a band of approximately 27 kDa (predicted molecular weight: 22 kDa).
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Dot blot		Use at an assay dependent concentration.

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

ターゲット情報

機能 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.

組織特異性

Expressed in all tissues tested. Highest levels in skeletal muscle, lowest in liver and kidney.

関連疾患

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.

配列類似性

Belongs to the CDI family.

ドメイン

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

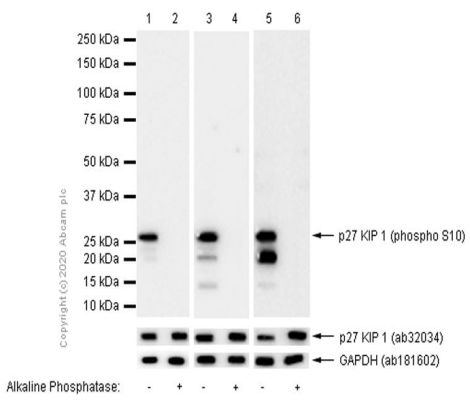
翻訳後修飾

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



Western blot - Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free (ab228877)

All lanes : Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] (**ab62364**) at 1/1000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate, membrane treated with Alkaline Phosphatase for 1 hour
Lane 3 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate
Lane 4 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate, membrane treated with Alkaline Phosphatase for 1 hour
Lane 5 : C6 (Rat glial tumor glial cell) whole cell lysate
Lane 6 : C6 (Rat glial tumor glial cell) whole cell lysate, membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

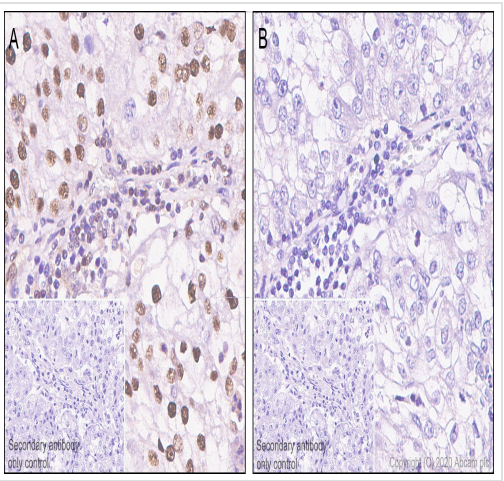
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 22 kDa

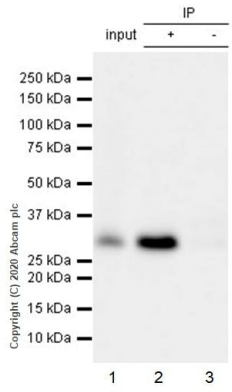
This data was developed using **ab62364**, the same antibody clone in a different buffer formulation.

Blocking buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free (ab228877)

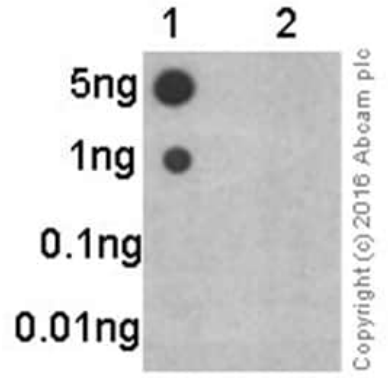
This data was developed using **ab62364** the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon cancer tissue sections labeling p27 KIP 1 with Purified **ab62364** at 1:100 dilution (4.19 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunoprecipitation - Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free (ab228877)

This data was developed using **ab62364**, the same antibody clone in a different buffer formulation.

Purified **ab62364** at 1/50 dilution (2µg) immunoprecipitating p27 KIP 1 in MCF7 whole cell lysate.
Lane 1 (input): MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): **ab62364** + MCF7 whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab62364** in MCF7 whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 27 kDa



Dot Blot - Anti-p27 KIP 1 (phospho S10) antibody [EP233(2)Y] - BSA and Azide free (ab228877)

Dot blot analysis of p27 KIP 1 (pS10) phospho peptide (Lane 1) and p27 KIP 1 non-phospho peptide (Lane 2) using **ab62364** at 1/1000 dilution followed by Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution.

Blocking and Diluting buffer and concentration: 5% NFDM /TBST.

Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab62364**).

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors