abcam

Product datasheet

Anti-p27 KIP 1 antibody [SX53G8] ab193379

KO 評価済

★★★★★ 3 Abreviews 15 References 画像数 3

製品の概要

製品名	Anti-p27 KIP 1 antibody [SX53G8]
製品の詳細	Mouse monoclonal [SX53G8] to p27 KIP 1
由来種	Mouse
特異性	ab193379 is highly specific and shows no cross-reaction with other related mitotic inhibitors.
アプリケーション	**適用あり:** WB, IHC-P, ICC/IF, IP, IHC-Fr, Flow Cyt, ICC
種交差性	**交差種:** Mouse, Rat, Human, Monkey **交差が予測される動物種:** Cat, Dog, Chinese hamster
免疫原	Recombinant full length protein (proprietary-tag) corresponding to Human p27 KIP 1 aa 1 to the C-terminus. Database link: **P46527** Run BLAST with Run BLAST with
ポジティブ・コントロール	WB: HAP1, HeLa and MCF7 cell lysate. IHC: Human colon tissue. ICC: MCF-7 cells.
特記事項	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

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.05% BSA
精製度	Protein G purified

ポリ/モノ	モノクローナル
クローン名	SX53G8
アイソタイプ	IgG1
軽鎖の種類	kappa

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ab193379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	★★★★★ (2)	Use a concentration of 0.5 - 1 µg/ml. Predicted molecular weight: 22 kDa.
IHC-P		Use a concentration of 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★☆ (1)	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC		Use a concentration of 1 - 2 µg/ml.

ターゲット情報

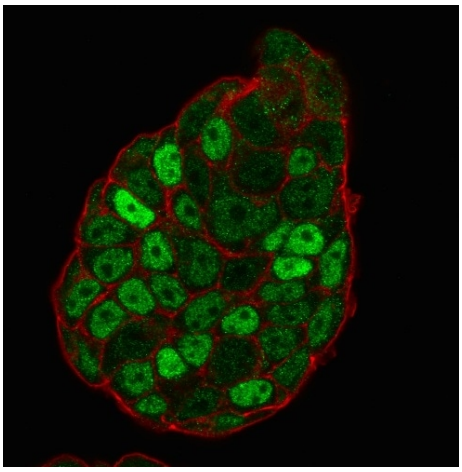
機能	Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor 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

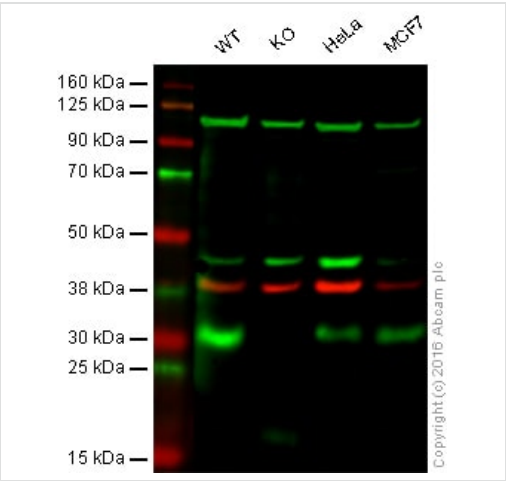
Nucleus. Cytoplasm. Endosome. Nuclear and cytoplasmic in quiescent cells. AKT-or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and 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



Immunocytochemistry - Anti-p27 KIP 1 antibody [SX53G8] (ab193379)

Immunocytochemical analysis of PFA-fixed MCF-7 cells labeling p27 KIP 1 with ab193379 at 1 µg/mL. A Goat anti-mouse IgG CF488 antibody (Green) was used as a secondary antibody. The membrane is stained with Phalloidin-CF640

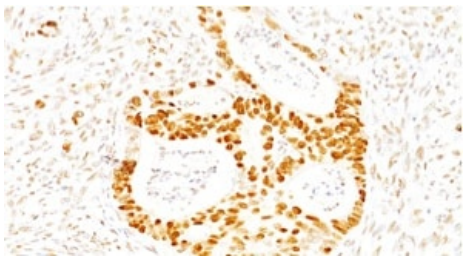


Western blot - Anti-p27 KIP 1 antibody [SX53G8] (ab193379)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: CDKN1B knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: MCF7 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab193379 observed at 30 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab193379 was shown to specifically recognize CDKN1B in wild-type HAP1 cells as well as additional cross-reactive bands. No bands were observed when CDKN1B knockout samples were used. Wild-type and CDKN1B knockout samples were subjected to SDS-PAGE. ab193379 and **ab181602** (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1 µg/mL and 1/10,000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p27 KIP 1 antibody [SX53G8] (ab193379)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human colon tissue labeling p27 KIP 1 with ab193379 at 1 µg/mL.

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