abcam

Product datasheet

Recombinant Human p27 KIP 1 protein (Tagged) ab56279

画像数3

製品の詳細

製品名 Recombinant Human p27 KIP 1 protein (Tagged)

精製度 > 70 % Affinity purified.

Purified by affinity chromatography

発現系 Escherichia coli

アクセッション番号 <u>P46527</u>

タンパク質長 Full length protein

Animal free No

由来 Recombinant

生物種 Human

配列 MSNVRVSNGS PSLERMDARQ AEHPKPSACR

NLFGPVDHEE LTRDLEKHCR DMEEASQRKW NFDFQNHKPL EGKYEWQEVE KGSLPEFYYR PPRPPKGACK VPAQESQDVS GSRPAAPLIG APANSEDTHL VDPKTDPSDS QTGLAEQCAG IRKRPATDDS STQNKRANRT EENVSDGSPN

AGSVEQTPKK PGLRRRQT

予測される分子量52 kDa領域1 to 198

タグ GST tag N-Terminus

特性

Our <u>Abpromise guarantee</u> covers the use of ab56279 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション SDS-PAGE

ELISA

Western blot

製品の状態 Liquid

前処理および保存

1

保存方法および安定性

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCI, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

関連情報

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 Pl3K. 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.

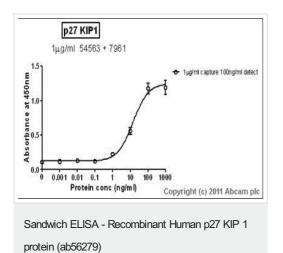
Ubiquitinated; in the cytoplasm by the KPC complex (composed of RNF123/KPC1 and UBAC1/KPC2) and, in the nucleus, by SCF(SKP2). The latter requires prior phosphorylation on Thr-187. Ubiquitinated; by a TRIM21-containing SCF(SKP2)-like complex; leads to its degradation.

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.

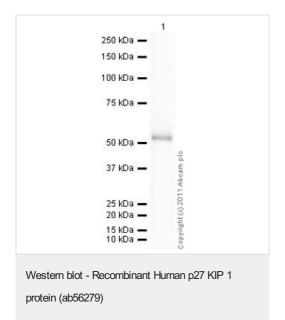
画像



Standard curve for p27 KIP 1 (Analyte: ab56279); dilution range 1pg/ml to 1 μ g/ml using Capture Antibody Mouse monoclonal to p27 KIP 1 (ab54563) at 1 μ g/ml and Detector Antibody Rabbit polyclonal to p27 KIP 1 (ab7961) at 0.1 μ g/ml.



SDS-PAGE analysis of ab56279 with molecular weight markers. Approximate molecular weight 52kDa.



Ab7961 recognizes the tagged recombinant p27 KIP 1 protein (ab56279) which has an expected molecular weight of 52 kDa.

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