abcam

Product datasheet

Recombinant Human p27 KIP 1 protein ab113602

1 图像

描述

产品名称	重组人p27 KIP 1蛋白
纯度	> 90 % SDS-PAGE. ab113602 was purified using conventional chromatography.
表达系统	Escherichia coli
Accession	P46527
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	MGSSHHHHHHSSGLVPRGSHMSNVRVSNGSPSLERMDARQ AEHPKPSACR NLFGPVDHEELTRDLEKHCRDMEEASQRKWNFDFQNHKPLEG KYEWQEVE KGSLPEFYYRPPRPPKGACKVPAQESQDVSGSRPAAPLIGAP ANSEDTHL VDPKTDPSDSQTGLAEQCAGIRKRPATDDSSTQNKRANRTEE NVSDGSPN AGSVEQTPKKPGLRRRQT
预测分子量	24 kDa including tags
氨基酸	1 to 198
标签	His tag N-Terminus

技术指标

Our **Abpromise guarantee** covers the use of **ab113602** in the following tested applications.

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

应用	Mass Spectrometry SDS-PAGE
质谱法	MALDI-TOF
形式	Liquid

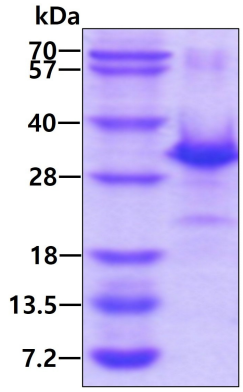
制备和贮存

稳定性和存储	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. pH: 8.00 Constituents: 0.32% Tris HCl, 20% Glycerol (glycerin, glycerine)

常规信息

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



SDS-PAGE - Recombinant Human p27 KIP 1 protein (ab113602)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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