

p27Kip1 Antibody (N-term S12)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20014a

Product Information

Application WB, E Primary Accession P46527

Other Accession <u>P46414</u>, <u>Q60439</u>, <u>NP_004055.1</u>

Reactivity
Predicted
Hamster
Host
Clonality
Polyclonal
Isotype
Rabbit IgG
Calculated MW
Antigen Region
Human, Mouse
Hamster
Rabbit
Rabbit
22073
1-30

Additional Information

Gene ID 1027

Other Names Cyclin-dependent kinase inhibitor 1B, Cyclin-dependent kinase inhibitor p27,

p27Kip1, CDKN1B, KIP1

Target/Specificity This p27Kip1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 1-30 amino acids from the N-terminal

region of human p27Kip1.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This

antibody is purified through a protein A column, followed by peptide affinity

purification.

Storage Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions p27Kip1 Antibody (N-term S12) is for research use only and not for use in

diagnostic or therapeutic procedures.

Protein Information

Name CDKN1B {ECO:0000303 | PubMed:20824794}

Function Important regulator of cell cycle progression. Inhibits the kinase activity of

CDK2 bound to cyclin A, but has little inhibitory activity on CDK2 bound to SPDYA (PubMed: 28666995). 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.

Cellular Location

Nucleus. Cytoplasm. Endosome. Note=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; this leads to lysosomal degradation (By similarity)

Tissue Location

Expressed in kidney (at protein level) (PubMed:15509543). Expressed in all tissues tested (PubMed:8033212) Highest levels in skeletal muscle, lowest in liver and kidney (PubMed:8033212).

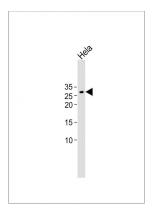
Background

This gene encodes a cyclin-dependent kinase inhibitor, which shares a limited similarity with CDK inhibitor CDKN1A/p21. The encoded protein binds to and prevents the activation of cyclin E-CDK2 or cyclin D-CDK4 complexes, and thus controls the cell cycle progression at G1. The degradation of this protein, which is triggered by its CDK dependent phosphorylation and subsequent ubiquitination by SCF complexes, is required for the cellular transition from quiescence to the proliferative state. [provided by RefSeq].

References

Kajihara, R., et al. Biochem. Biophys. Res. Commun. 401(3):350-355(2010) Kedde, M., et al. Nat. Cell Biol. 12(10):1014-1020(2010) Canbay, E., et al. Anticancer Res. 30(7):3093-3098(2010) Do Nascimento Borges, B., et al. In Vivo 24(4):579-582(2010) Qin, J., et al. Hepatogastroenterology 57 (99-100), 547-553 (2010) :

Images



All lanes: Anti-p27Kip1 Antibody (N-term S12) at 1:2000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 27 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

• CDK16 Phosphorylates and Degrades p53 to Promote Radioresistance and Predicts Prognosis in Lung Cancer.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.