

**Anti-p27 (RABBIT) Antibody**  
**p27 Antibody**  
**Catalog # ASR3673****Specification**

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**Anti-p27 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, IP, I, LCI
Application Note	Anti-p27 has been tested in western blot. This antibody is suitable for use in ELISA, immunoprecipitation, co-immunoprecipitation and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~27 kDa in size corresponding to p27 by western blotting in the appropriate cell lysate or extract. Anti-p27 is suitable for the detection by immunoblot of human p27. No reactivity is observed with p27 from mouse. This antibody is suitable for immunoprecipitation of in vitro translated protein and cell lysates (C212, 3T3-L1) and will co-precipitate associated proteins. Optimal titers for other applications should be determined by the researcher.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This antibody was prepared from whole rabbit serum produced by repeated immunizations with a full length recombinant human p27 protein.
Preservative	0.01% (w/v) Sodium Azide

**Anti-p27 (RABBIT) Antibody - Additional Information****Gene ID** 1027**Other Names**  
1027**Purity**

This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a p27 protein from human tissue. No reaction was observed against other related tumor suppressor proteins. No reactivity is observed with p27 from mouse.

Reactivity against p27 from other species is unknown.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-p27 (RABBIT) Antibody - 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:<a href="http://www.uniprot.org/citations/28666995" target="\_blank">28666995</a>). 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 stoichiometry.

**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)

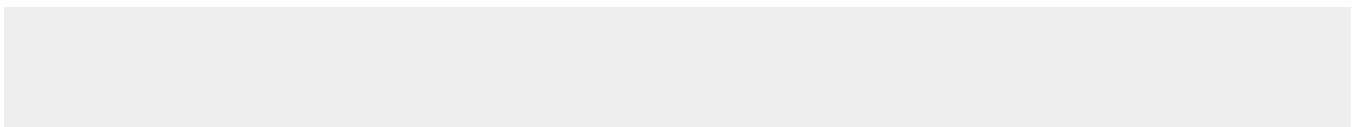
**Tissue Location**

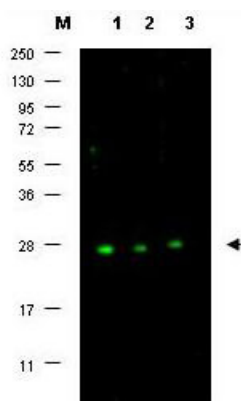
Expressed in kidney (at protein level) (PubMed:15509543). Expressed in all tissues tested (PubMed:8033212) Highest levels in skeletal muscle, lowest in liver and kidney (PubMed:8033212).

**Anti-p27 (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-p27 (RABBIT) Antibody - Images**



Western blot using Rockland's affinity purified anti-p27 antibody shows detection (lanes 1-3) of p27 protein in MCF7 whole cell lysate (p/n W09-000-360) (arrowhead). Separation was achieved using a 4-20% gradient gel. Blocking occurred using 5% BLOTTO (p/n B501-0500). Primary antibody was diluted 1:500 in 1% BLOTTO. The membrane was washed and reacted with a 1:10,000 dilution of Dylight™ 800 conjugated Gt-a-Rabbit IgG (p/n 611-145-002). Molecular weight estimation was made by comparison to prestained MW markers p/n MB-210-0500 indicated at the left (lane M). Other detection systems will yield similar results.

#### Anti-p27 (RABBIT) Antibody - Background

p27 Kip is a cyclin-dependent kinase inhibitor that shares a limited similarity with CDK inhibitor CDKN1A/p21. p27 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.