

ARG55102 anti-p27 Kip1 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes p27 Kip1
Tested Reactivity	Ms
Tested Application	WB
Specificity	This antibody detects endogenous levels of p27 Kip1 and does not cross-react with related proteins.
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	p27 Kip1
Species	Human
Immunogen	Purified recombinant Human p27 Kip1 protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	Cyclin-dependent kinase inhibitor 1B; MEN4; KIP1; P27KIP1; Cyclin-dependent kinase inhibitor p27; p27Kip1; CDKN4; MEN1B

Application Instructions

Application table	Application	Dilution
	WB	1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

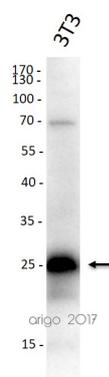
Properties

Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.4), 0.03% Proclin 300 and 50% Glycerol
Preservative	0.03% Proclin 300
Stabilizer	50% Glycerol
Concentration	8.08 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 12576 Mouse Swiss-port # P46414 Mouse
Gene Symbol	CDKN1B
Gene Full Name	cyclin-dependent kinase inhibitor 1B (p27, Kip1)
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. Mutations in this gene are associated with multiple endocrine neoplasia type IV (MEN4). [provided by RefSeq, Apr 2014]
Function	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 stoichiometry. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Gene Regulation antibody
Calculated Mw	22 kDa
PTM	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 CDK1 and 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 (By similarity).
Cellular Localization	Nucleus. Cytoplasm. Endosome

Images



ARG55102 anti-p27 Kip1 antibody WB image

Western blot: 30 µg of 3T3 cell lysate stained with ARG55102 anti-p27 Kip1 antibody at 1:1000 dilution.