

PRODUCT INFORMATION



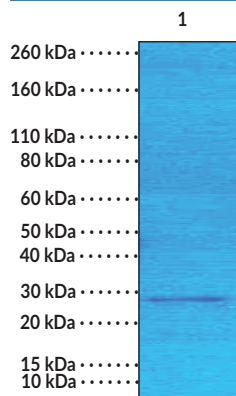
p27Kip1 (C-Term) Rabbit Monoclonal Antibody (Clone RM302)

Item No. 32247

Overview and Properties

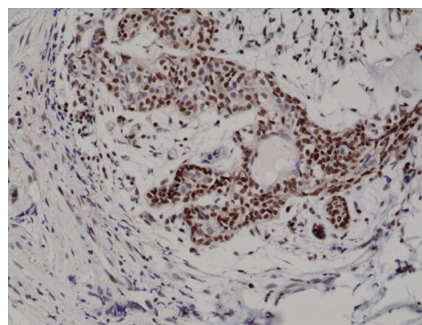
Contents:	This vial contains 100 µl protein A-affinity purified monoclonal antibody.
Synonyms:	CDKN4, Cyclin-dependent Kinase Inhibitor P27, Cyclin-dependent Kinase Inhibitor 1B, KIP1
Immunogen:	Peptide from the C-terminal region of human p27Kip1
Cross Reactivity:	(+) p27Kip1
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	50% glycerol/PBS, with 1% BSA and 0.09% sodium azide
Clone:	RM302
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:500-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: MCF-7 cells lysate

WB of MCF-7 cell lysate using p27Kip1 (C-Term) Rabbit Monoclonal Antibody (Clone RM302) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue using p27Kip1 (C-Term) Rabbit Monoclonal Antibody (Clone RM302) at a 1:200 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

p27Kip1 is a member of the Cip/Kip family of cyclin-dependent kinase (CDK) inhibitor proteins encoded by *CDKN1B* in humans.¹ It is an intrinsically disordered protein but does contain a structured N-terminal kinase inhibitor domain composed of a nuclear export signal, cyclin-binding subdomain (D1), CDK-binding subdomain (D2) that binds to CDKs to inhibit their catalytic activity, and linker subdomain that connects D1 and D2. p27Kip1 is ubiquitously expressed and shuttles from the nucleus to the cytoplasm in a cell cycle- or signaling-dependent manner. It has subcellular compartment-specific roles in cytoskeletal organization, autophagy, cytokinesis, and regulation of transcription, as well as regulation of cell proliferation, survival, differentiation, invasion, and motility.² Germline mutations in *CDKN1B* have been found in tumor samples isolated from patients with multiple endocrine neoplasia type 1 and familial prostate cancer. Epithelial and stromal levels of p27Kip1 are decreased in women with endometriosis.³ Cayman's p27Kip1 (C-Term) Rabbit Monoclonal Antibody (Clone RM302) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Bachs, O., Gallastegui, E., Orlando, S., *et al.* Role of p27^{Kip1} as a transcriptional regulator. *Oncotarget* **9**(40), 26259-26278 (2018).
2. Cusan, M., Mungo, G., Zompit, M.D.M., *et al.* Landscape of CDKN1B mutations in luminal breast cancer and other hormone-driven human tumors. *Front. Endocrinol. (Lausanne)* **9**, 393 (2018).
3. Gonçalves, G.A. p27^{Kip1} as a key regulator of endometriosis. *Eur. J. Obstet. Gynecol. Reprod. Biol.* **221**, 1-4 (2018).

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