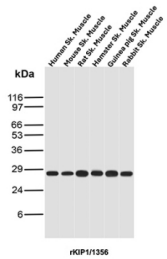
p27Kip1 Antibody rKIP1/1356 / Broad WB Validation Antibody [clone rKIP1/1356] (V9161)

Catalog No.	Formulation	Size
V9161-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9161-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9161SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

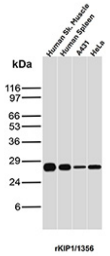
Recombinant | MOUSE MONOCLONAL

Bulk quote request

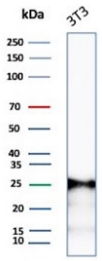
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Hamster, Rabbit, Guinea pig
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rKIP1/1356
Purity	Protein A/G affinity
UniProt	P46527
Localization	Nuclear
Applications	Flow cytometry: 1-2ug/million cells (Human) Immunofluorescence: 1-2ug/ml (Human) Western blot: 2-4ug/ml (Human/Mouse/Rat/Rabbit/Hamster/Guinea pig) Immunohistochemistry (FFPE): 1-2ug/ml (Human)
Limitations	This p27Kip1 Antibody rKIP1/1356 / Broad WB Validation Antibody is available for research use only.



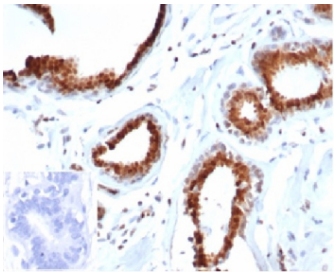
p27Kip1 Antibody rKIP1/1356 Multi-Species Skeletal Muscle WB. Western blot analysis of p27Kip1 / CDKN1B expression across skeletal muscle lysates from multiple species using p27Kip1 antibody clone rKIP1/1356. Lane 1: human skeletal muscle lysate, Lane 2: mouse skeletal muscle lysate, Lane 3: rat skeletal muscle lysate, Lane 4: hamster skeletal muscle lysate, Lane 5: guinea pig skeletal muscle lysate, Lane 6: rabbit skeletal muscle lysate. A band is detected at approximately 27-29 kDa, consistent with the predicted molecular weight of p27Kip1 (CDKN1B), a cyclin-dependent kinase inhibitor that regulates cell cycle progression. The consistent signal across species supports the use of this clone for broad western blot validation in skeletal muscle samples.



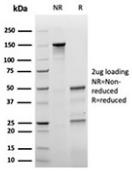
p27Kip1 Antibody rKIP1/1356 Tissue and Cell Line WB. Western blot analysis of p27Kip1 / CDKN1B expression in human tissue and cell lysates using p27Kip1 antibody clone rKIP1/1356. Lane 1: human skeletal muscle lysate, Lane 2: human spleen lysate, Lane 3: A431 cell lysate, Lane 4: HeLa cell lysate. A band is detected at approximately 27-29 kDa, consistent with the predicted molecular weight of p27Kip1 (CDKN1B), a key inhibitor of cyclin-dependent kinases. Detection across normal tissue and cultured cell samples supports the use of this clone for broad western blot validation across diverse sample types.



Western blot testing of mouse NIH 3T3 cell lysate with recombinant p27Kip1 Antibody rKIP1/1356.



IHC staining of FFPE human breast carcinoma tissue with p27Kip1 antibody (clone rKIP1/1356). Negative control inset: PBS used instead of primary antibody to control for secondary Ab binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant p27Kip1 antibody (clone rKIP1/1356) as confirmation of integrity and purity.

Description

Cyclin-dependent kinase inhibitor 1B (CDKN1B), commonly known as p27Kip1 or p27, is a critical regulator of cell cycle progression that functions as a potent inhibitor of cyclin-dependent kinase activity. p27Kip1 controls the transition from G1 to S phase by binding to cyclin-CDK complexes, particularly cyclin E-CDK2 and cyclin D-CDK4/6, thereby preventing phosphorylation of downstream targets required for DNA synthesis. p27Kip1 is primarily localized in the nucleus of quiescent and differentiated cells, where it enforces cell cycle arrest, but may also be detected in the cytoplasm depending on phosphorylation status and signaling context. The p27Kip1 Antibody / Broad WB Validation Antibody is designed to detect this key cell cycle inhibitor with strong and consistent performance across multiple species, tissues, and experimental systems.

p27Kip1 Antibody rKIP1/1356, also referred to as CDKN1B antibody and Kip1 antibody in the literature, recognizes a widely expressed protein that is tightly regulated at the transcriptional and post-translational levels. Western blot analysis demonstrates a clear and reproducible band at approximately 27Ã¢Â€Â“29 kDa across skeletal muscle lysates from multiple species, including human, mouse, rat, hamster, guinea pig, and rabbit, highlighting the conserved nature of p27Kip1. Additional detection in human tissues and tumor-derived cell lines such as A431 and HeLa further supports the broad applicability of this antibody for western blot analysis across diverse biological sample types.

Structurally, p27Kip1 contains an N-terminal domain responsible for binding and inhibiting cyclin-CDK complexes, and a C-terminal region that regulates protein stability, localization, and degradation. Its function is tightly controlled through phosphorylation, ubiquitination, and proteasomal turnover, allowing rapid modulation of protein levels in response to mitogenic signals. These regulatory mechanisms enable p27Kip1 to act as a dynamic checkpoint protein that integrates extracellular signals with intracellular cell cycle control.

Functionally, p27Kip1 acts as a tumor suppressor by restraining cell proliferation and maintaining proper cell cycle checkpoints. Loss of p27Kip1 expression, cytoplasmic mislocalization, or increased degradation has been associated with enhanced cell proliferation and poor clinical outcomes in multiple cancer types. Its central role in controlling cell division has made it a widely studied marker in oncology, cell cycle research, and differentiation studies.

The consistent detection of p27Kip1 at the expected molecular weight across multiple species and sample types highlights its conserved biological function and supports the reliability of this antibody for comparative western blot studies. The ability to detect p27Kip1 in both normal tissues and cultured cell lines demonstrates strong performance across a range of experimental conditions, making it particularly useful for studies requiring cross-sample validation.

Immunohistochemical analysis of breast carcinoma tissue further complements these findings, with nuclear staining observed in tumor epithelial cells consistent with the role of p27Kip1 in regulating proliferation. This combined biochemical and tissue-level validation supports the use of this antibody in both western blot and histological applications. Clone rKIP1/1356 is a recombinant mouse monoclonal antibody designed to detect p27Kip1 with high specificity, providing a robust and versatile tool for investigating cell cycle regulation, tumor biology, and cellular proliferation.

For additional research options, explore our highly published p27Kip1 Antibody SX53G8, a well-established monoclonal antibody targeting CDKN1B.

Application Notes

Optimal dilution of the p27Kip1 Antibody rKIP1/1356 / Broad WB Validation Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human CDKN1B/p27Kip1 protein was used as the immunogen for the recombinant p27Kip1 antibody.

Storage

Aliquot the p27Kip1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

p27Kip1 antibody, CDKN1B antibody, p27 antibody, Kip1 antibody, p27Kip1 WB antibody

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