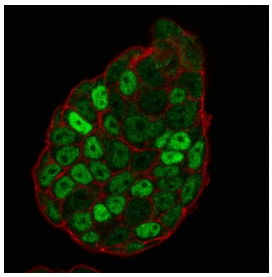
p27Kip1 Antibody SX53G8 / CDKN1B Monoclonal Antibody [clone SX53G8] (V2086)

Catalog No.	Formulation	Size
V2086-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2086-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2086SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2086IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

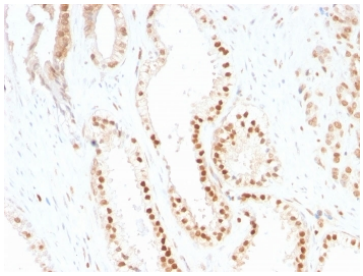
Citations (7)

Bulk quote request

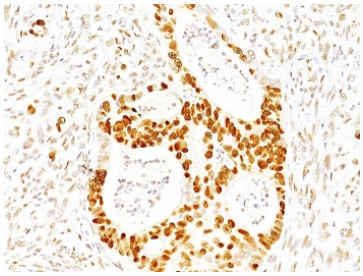
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SX53G8
Purity	Protein G affinity chromatography
Gene ID	1027
Localization	Nuclear
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-3ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This p27Kip1 Antibody SX53G8 / CDKN1B Monoclonal Antibody is available for research use only.



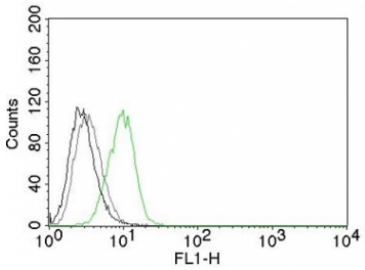
p27Kip1 Antibody SX53G8 IF in MCF7 Cells. Immunofluorescence staining of PFA-fixed human MCF7 cells using the CDKN1B Monoclonal Antibody (green), with phalloidin counterstaining of filamentous actin (red). Predominantly nuclear staining is observed.



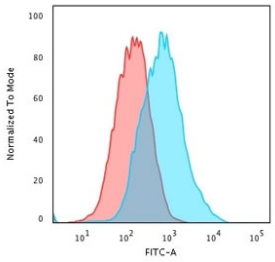
p27Kip1 Antibody SX53G8 IHC in Human Prostate Carcinoma. Immunohistochemical staining of FFPE human prostate carcinoma tissue using the CDKN1B Monoclonal Antibody. Nuclear staining is observed in a subset of cells following heat-induced epitope retrieval in EDTA buffer, pH 8.0.



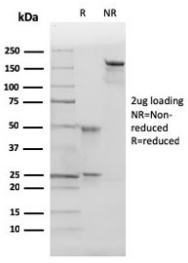
p27Kip1 Antibody SX53G8 IHC in Human Colon Carcinoma. Immunohistochemical staining of FFPE human colon carcinoma tissue using the CDKN1B Monoclonal Antibody. Nuclear staining is observed in tumor cells following heat-induced epitope retrieval in EDTA buffer, pH 8.0.



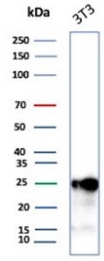
p27Kip1 Antibody SX53G8 FACS in HeLa Cells. Intracellular flow cytometry analysis of human HeLa cells using Alexa Fluor 488-conjugated CDKN1B Monoclonal Antibody (green) compared with an isotype control (gray). A fluorescence shift indicates p27 detection.



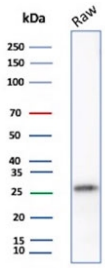
p27Kip1 Antibody SX53G8 FACS in MCF7 Cells. Flow cytometry analysis of PFA-fixed human MCF7 cells using the CDKN1B Monoclonal Antibody (blue) compared with an isotype control (red). A rightward fluorescence shift indicates intracellular p27 detection.



p27Kip1 Antibody SX53G8 SDS-PAGE Purity Analysis. SDS-PAGE analysis of purified, BSA-free CDKN1B Monoclonal Antibody under reducing (R) and nonreducing (NR) conditions. Reduced antibody heavy and light chains migrate near 50 and 25 kDa, respectively, while the intact antibody migrates near 150 kDa under nonreducing conditions.



p27Kip1 Antibody SX53G8 WB in NIH 3T3 Cells. Western blot analysis of mouse NIH 3T3 cell lysate using the CDKN1B Monoclonal Antibody. A band is detected near 27 kDa, consistent with the expected molecular weight of p27.



p27Kip1 Antibody SX53G8 WB in RAW264.7 Cells. Western blot analysis of mouse RAW264.7 cell lysate using the CDKN1B Monoclonal Antibody. A band is detected near 27 kDa, consistent with the expected molecular weight of p27.

Description

The p27Kip1 Antibody SX53G8 / CDKN1B Monoclonal Antibody recognizes cyclin-dependent kinase inhibitor 1B, a member of the Cip/Kip family of cell cycle regulators. Also known as p27 or KIP1, this protein is encoded by the CDKN1B gene and plays a central role in controlling the transition from G1 to S phase. By binding to cyclin-dependent kinase complexes, particularly cyclin E-CDK2 and cyclin A-CDK2, p27 restricts cell cycle progression and helps coordinate proliferation with extracellular growth signals.

p27 abundance is regulated through transcriptional, translational, and post-translational mechanisms. Phosphorylation influences its stability, subcellular localization, and interactions with cyclin-CDK complexes. Phosphorylation at threonine 187 promotes recognition by the SCF-SKP2 ubiquitin ligase complex, leading to proteasomal degradation. This mechanism allows cells to reduce p27 levels as they commit to DNA replication. Conversely, conditions that favor cell cycle arrest frequently promote p27 accumulation and sustained inhibition of CDK activity.

Although predominantly associated with nuclear cell cycle control, p27 also performs functions in the cytoplasm. Its localization is influenced by phosphorylation and interactions with regulatory proteins, including components of the PI3K-AKT signaling pathway. Cytoplasmic p27 can influence actin organization, cell migration, and interactions with Rho family GTPases. These activities demonstrate that p27 contributes to cellular behavior beyond its established role as a negative regulator of proliferation.

CDKN1B is widely studied in cancer biology because reduced nuclear p27 expression is associated with aggressive behavior and unfavorable outcomes in several tumor types. Unlike many classical tumor suppressors, CDKN1B is frequently dysregulated through altered protein stability or localization rather than direct genetic inactivation. Germline pathogenic variants are also associated with multiple endocrine neoplasia type 4, highlighting its importance in endocrine tumor suppression. Beyond cancer, p27 contributes to differentiation, tissue development, and the maintenance of cellular quiescence. NSJ Bioreagents offers this p27Kip1 Antibody for investigating the regulation of p27 abundance and localization in relation to proliferation, differentiation, and tumor biology.

Explore related targets involved in cell cycle regulation, proliferation, and differentiation in our Cell Biology Antibodies collection.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the p27Kip1 Antibody SX53G8 / CDKN1B Monoclonal Antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Purified GST-p27 fusion protein of human origin was used as the immunogen for this p27Kip1 antibody.

Storage

Store the p27Kip1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CDKN1B antibody, p27 antibody, KIP1 antibody, Cyclin-Dependent Kinase Inhibitor 1B antibody

References (1)

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