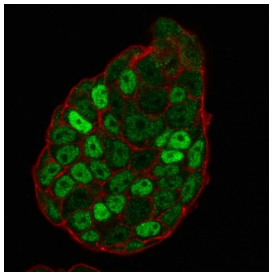
p27Kip1 Antibody [clone SX53G8] (V2086)

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

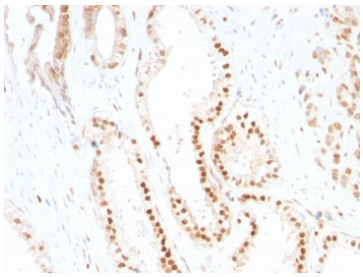
Citations (7)

Bulk quote request

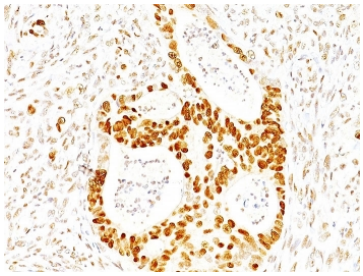
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SX53G8
Purity	Protein G affinity chromatography
Gene ID	1027
Localization	Nuclear
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-3ug/ml Immunohistochemistry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



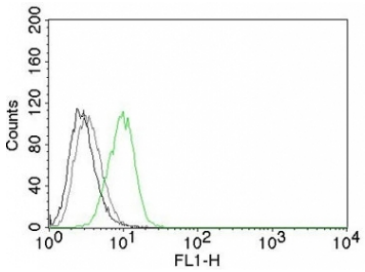
Immunofluorescent staining of PFA-fixed human MCF7 cells with p27Kip1 antibody (clone SX53G8, green) and Phalloidin (red).



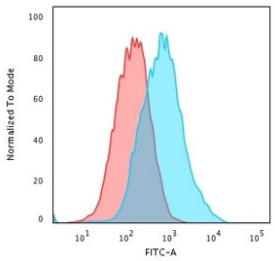
IHC staining of FFPE human prostate carcinoma tissue with p287Kip1 antibody (clone SX53G8). HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



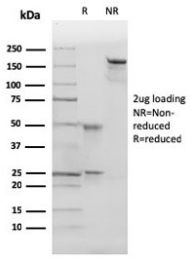
IHC staining of FFPE human colon carcinoma tissue with p287Kip1 antibody (clone SX53G8). HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



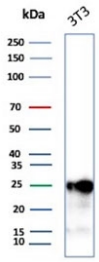
Intracellular FACS testing of human HeLa cells with Alexa Fluor 488 conjugated p27Kip1 antibody (clone SX53G8, green) and isotype control (gray).



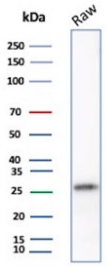
Flow cytometry staining of PFA-fixed human MCF7 cells with p27Kip1 antibody; Red=isotype control, Blue= p27Kip1 antibody.



SDS-PAGE analysis of purified, BSA-free p27Kip1 antibody (clone SX53G8) as confirmation of integrity and purity.



Western blot testing of mouse NIH 3T3 cell lysate with p27Kip1 antibody. Expected molecular weight ~27 kDa.



Western blot testing of mouse RAW264.7 cell lysate with p27Kip1 antibody. Expected molecular weight ~27 kDa.

Description

p27Kip1 antibody clone SX53G8 is a monoclonal antibody that detects p27, also known as cyclin-dependent kinase inhibitor 1B. This protein regulates cell cycle progression by inhibiting cyclin-CDK complexes, especially cyclin E-CDK2. By enforcing arrest at the G1 phase, p27 prevents uncontrolled proliferation and helps maintain genomic integrity. NSJ Bioreagents provides this antibody as a valuable reagent for research into oncology, molecular biology, and cell cycle regulation.

The antibody produces strong nuclear staining in many normal tissues, reflecting the role of p27 in maintaining growth control. It functions as a tumor suppressor by preventing inappropriate entry into S phase. Reduced levels of p27 are frequently observed in a wide range of cancers, including breast, prostate, colon, and gastric carcinomas. This makes detection of p27 important for assessing tumor grade, prognosis, and therapeutic response.

In oncology, researchers employ this antibody to study tumor biology and to correlate p27 expression with patient outcomes. Studies have shown that diminished nuclear staining is associated with aggressive disease and poor survival, while retained expression indicates a more favorable prognosis. As such, the antibody is often included in panels designed to stratify tumors and guide treatment decisions.

In molecular and cellular biology, the antibody is widely used to examine mechanisms of cell cycle regulation and checkpoint control. p27 integrates external signals from growth factors, cytokines, and stress pathways to determine whether a cell progresses, pauses, or undergoes programmed death. Detecting p27 expression patterns provides insight into senescence, differentiation, and apoptosis, processes that are disrupted in many diseases.

Beyond oncology, the antibody has been applied in developmental biology and neuroscience. p27 influences neuronal differentiation and migration, and altered expression has been linked to neurodevelopmental disorders. Its role in stem cell biology is also of interest, as p27 contributes to the balance between self-renewal and differentiation.

The reagent has been validated in both tissue-based and cell-based systems, consistently delivering strong and specific nuclear staining with minimal background. Its reproducibility has led to wide use in both experimental studies and clinical research. Alternate names include CDKN1B antibody, cyclin-dependent kinase inhibitor 1B antibody, and Kip1 antibody.

By supporting research into cancer biology, cell cycle regulation, neurobiology, and developmental biology, this antibody continues to serve as a critical tool across multiple disciplines. With proven performance and specificity, it provides investigators with the means to reliably study one of the most important regulators of cell cycle progression.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the p27Kip1 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).

References (1)