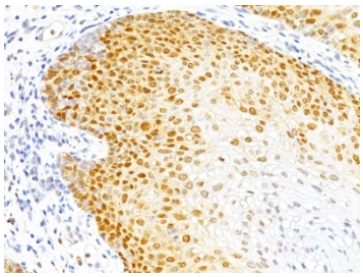
p27 Antibody DCS-72.F6 / CDKN1B Cell Cycle Inhibitor Antibody [clone DCS-72.F6] (V2437)

Catalog No.	Formulation	Size
V2437-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2437-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2437SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2437IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

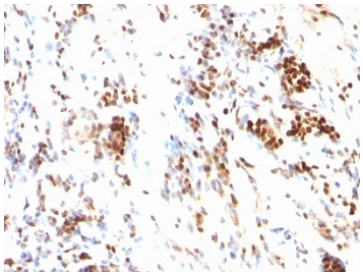
Citations (6)

Bulk quote request

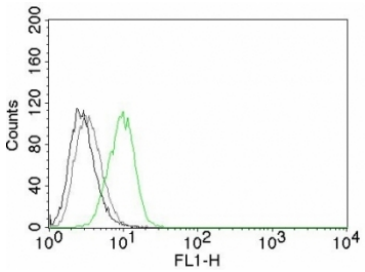
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	DCS-72.F6
Purity	Protein G affinity chromatography
UniProt	P46527
Localization	Nuclear
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 0.5-1ug/ml Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.25-0.5ug/ml for 30 min at RT
Limitations	This p27 Antibody DCS-72.F6 / CDKN1B Cell Cycle Inhibitor Antibody is available for research use only.



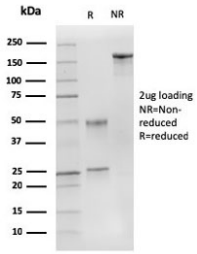
p27 Antibody DCS-72.F6 IHC in Human Cervical Carcinoma. Immunohistochemical staining of FFPE human cervical carcinoma tissue using the CDKN1B Cell Cycle Inhibitor Antibody clone DCS-72.F6. Prominent nuclear staining is observed in numerous tumor cells, consistent with the established nuclear localization of p27Kip1.



p27 Antibody DCS-72.F6 IHC in Human Colon Carcinoma. Immunohistochemical staining of FFPE human colon carcinoma tissue using the CDKN1B Cell Cycle Inhibitor Antibody clone DCS-72.F6. Nuclear staining is observed in a subset of cells, with variable staining intensity across the tissue section.



p27 Antibody DCS-72.F6 FACS in HeLa Cells. Flow cytometry analysis of human HeLa cells using Alexa Fluor 488-conjugated CDKN1B Cell Cycle Inhibitor Antibody clone DCS-72.F6 (green), compared with an isotype control (gray) and unstained cells (black). The fluorescence distribution shows a rightward shift relative to the controls, indicating intracellular p27 detection.



p27 Antibody DCS-72.F6 SDS-PAGE Purity Analysis. SDS-PAGE analysis of purified, BSA-free CDKN1B Cell Cycle Inhibitor Antibody clone DCS-72.F6 under reducing (R) and nonreducing (NR) conditions. The reduced sample shows antibody heavy and light chains near 50 and 25 kDa, respectively, while the nonreduced sample shows a higher-molecular-weight band consistent with intact immunoglobulin.

Description

The p27 Antibody DCS-72.F6 / CDKN1B Cell Cycle Inhibitor Antibody recognizes cyclin-dependent kinase inhibitor 1B, a member of the Cip/Kip family of proteins that regulate cell cycle progression. Commonly known as p27Kip1, this protein inhibits cyclin-dependent kinase activity and helps control the transition from G1 to S phase. Its interactions with cyclin E-CDK2 and cyclin A-CDK2 complexes restrict cell cycle progression, while its association with cyclin D-CDK4/6 complexes contributes to the assembly and regulation of these complexes. Through these activities, p27 helps coordinate cellular proliferation with growth signals and environmental conditions.

p27 levels are controlled primarily through post-translational mechanisms that regulate protein stability and localization. Phosphorylation at threonine 187 promotes recognition by the SCF-SKP2 ubiquitin ligase complex, resulting in ubiquitination and proteasomal degradation. This process facilitates cell cycle progression by reducing inhibitory constraints on CDK activity. Conversely, growth-inhibitory signals, including those mediated by transforming growth factor beta, can promote p27 accumulation and contribute to G1 arrest. These regulatory mechanisms are important for maintaining cellular quiescence and coordinating proliferation with differentiation.

Although p27 is best known for its nuclear functions, cytoplasmic localization has also been documented. Cytoplasmic p27 can influence cell migration, cytoskeletal organization, and signaling through Rho family GTPases. Its distribution

between nuclear and cytoplasmic compartments is therefore an important determinant of biological activity. In cancer, reduced nuclear p27 expression or increased cytoplasmic localization has been associated with altered proliferation, tumor progression, and unfavorable clinical outcomes in several malignancies.

The DCS-72.F6 monoclonal clone has an established research history, with more than 30 publications associated with its use. It has been reported to co-precipitate CDK4 in complexes containing p27, providing additional relevance to studies of cyclin-CDK regulation. Its recognition of p27 in formalin-fixed tissues also supports investigations of protein expression and localization in tumor specimens.

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

Application Notes

Optimal dilution of the p27 Antibody DCS-72.F6 / CDKN1B Cell Cycle Inhibitor Antibody to be determined by the researcher.

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 min
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

Mouse recombinant protein was used as the immunogen for the p27 antibody. The epitope has been localized to amino acids 83-204.

Storage

Store the p27 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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