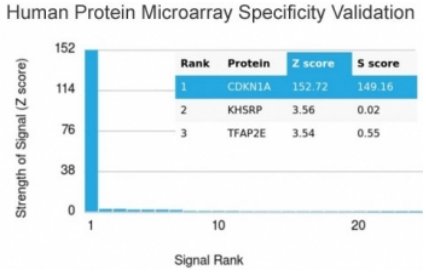
Recombinant p21 Antibody / p21WAF1 / CDKN1A [clone CIP1/4377R] (V8615)

Catalog No.	Formulation	Size
V8615-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8615-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8615SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

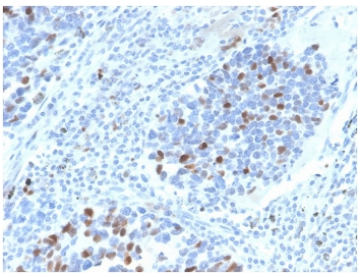
Recombinant RABBIT MONOCLONAL

Bulk quote request

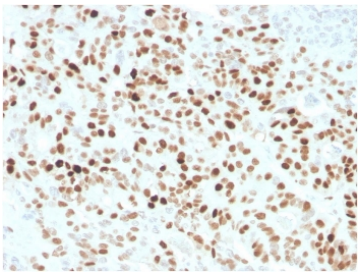
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	CIP1/4377R
Purity	Protein A affinity chromatography
UniProt	P38936
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This recombinant p21 antibody is available for research use only.



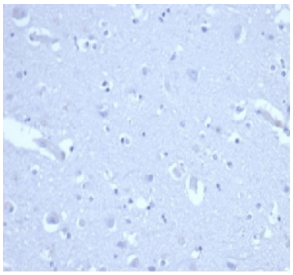
Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using p21 antibody. These results demonstrate the foremost specificity of the CIP1/4377R mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



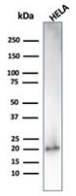
IHC staining of FFPE human lung carcinoma with recombinant p21 antibody (clone CIP1/4377R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



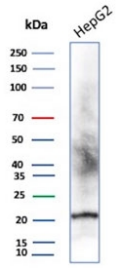
IHC staining of FFPE human colon carcinoma with recombinant p21 antibody (clone CIP1/4377R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



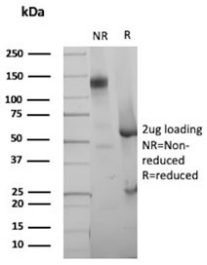
Negative control: IHC staining of FFPE human brain tissue with recombinant p21 antibody (clone CIP1/4377R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Western blot testing of human HeLa cell lysate with recombinant p21 antibody (clone CIP1/4377R).



Western blot testing of human HepG2 cell lysate with recombinant p21 antibody (clone CIP1/4377R).



SDS-PAGE analysis of purified, BSA-free recombinant p21 antibody (clone CIP1/4377R) as confirmation of integrity and purity.

Description

Recombinant p21 antibody detects cyclin-dependent kinase inhibitor 1A, encoded by the CDKN1A gene. Commonly referred to as p21, this protein is a universal inhibitor of cyclin-dependent kinases and a key mediator of cell cycle regulation. Because p21 integrates signals from p53 and other pathways to enforce growth arrest, Recombinant p21 antibody is essential in cancer biology, DNA damage research, and cell cycle studies.

p21 belongs to the CIP/KIP family of CDK inhibitors and functions by binding to cyclin-CDK complexes, preventing their activity and halting progression at the G1 and S phases. It is transcriptionally upregulated by p53 in response to DNA damage, linking stress responses to cell cycle control. Beyond its canonical role, p21 influences apoptosis, senescence, and transcriptional regulation, demonstrating its multifunctional nature.

The Recombinant p21 antibody clone CIP1/4377R provides specific and reproducible recognition of this regulator. Recombinant technology ensures lot-to-lot uniformity, critical for comparative studies. Clone CIP1/4377R has been cited in peer-reviewed research on p53 signaling, tumor suppression, and cell cycle checkpoints. It is suitable for applications including immunohistochemistry, Western blotting, and flow cytometry.

Research using clone CIP1/4377R has clarified how p21 functions both as a tumor suppressor and, in some contexts, as a survival factor that supports cancer progression. Its regulation by p53 links it directly to DNA damage responses, while its independent roles highlight its complexity in biology. The antibody has also been used to study cellular senescence, where p21 accumulation enforces a stable cell cycle arrest associated with aging and tumor suppression.

NSJ Bioreagents supplies this Recombinant p21 antibody to support studies in cancer biology, DNA damage response, and senescence. Alternate names include CDKN1A antibody, cyclin-dependent kinase inhibitor 1 antibody, WAF1 antibody, CIP1 antibody, cell cycle arrest protein antibody, and tumor suppressor protein antibody.

Application Notes

Optimal dilution of the recombinant p21 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-100 from the human protein was used as the immunogen for the recombinant p21 antibody.

Storage

Store the recombinant p21 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).