

CDKN2A Antibody

Catalog No: #32050

Package Size: #32050-1 50ul #32050-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Description

Product Name	CDKN2A Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IF
Species Reactivity	Hu
Specificity	The antibody detects endogenous level of total CDKN2A protein.
Immunogen Type	Peptide
Immunogen Description	A synthetic peptide of human CDKN2A.
Target Name	CDKN2A
Other Names	CDKN2A; ARF; CDK4I; CDKN2; CMM2
Accession No.	Swiss-Prot:P42771NCBI Gene ID:1029
SDS-PAGE MW	16KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

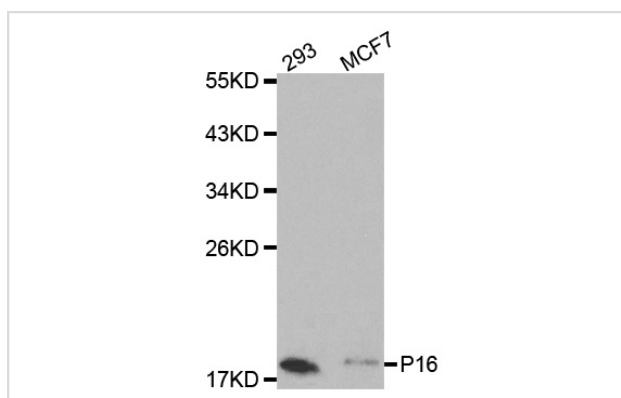
Application Details

Western blotting: 1:500 - 1:2000

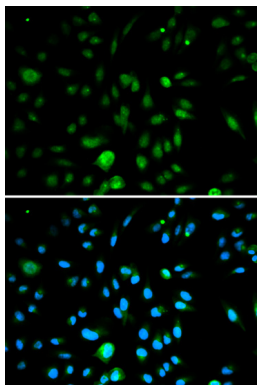
Immunohistochemistry: 1:50 - 1:200

Immunofluorescence: 1:50 - 1:200

Images



Western blot analysis of extracts of various cell lines, using CDKN2A antibody.



Immunofluorescence analysis of A549 cell using CDKN2A antibody. Blue: DAPI for nuclear staining.

Background

The division cycle of eukaryotic cells is regulated by a family of protein kinases known as the cyclin-dependent kinases (CDKs). The sequential activation of individual members of this family and their consequent phosphorylation of critical substrates promotes orderly progression through the cell cycle. It has been reported that CDKN2A binds to CDK4 and inhibits the catalytic activity of the CDK4/cyclin D enzymes. CDKN2A seems to act in a regulatory feedback circuit with CDK4, D-type cyclins and retinoblastoma protein (1). The INK4 (inhibitor of cyclin-dependent kinase 4) family consists of four tumor-suppressor proteins: p15(INK4B), CDKN2A(INK4A), p18(INK4C), and p19(INK4D). While their sequences and structures are highly homologous, they show appreciable differences in conformational flexibility, stability, and aggregation tendency (2). Cell cycle arrest at the G1 checkpoint allows completion of critical macromolecular events prior to S phase. Regulators of the G1 checkpoint include an inhibitor of cyclin-dependent kinase, CDKN2A/INK4; two tumor-suppressor proteins, p53 and RB and cyclin D1. CDKN2A/INK4 is a tumor-suppressor protein and that genetic and epigenetic abnormalities in genes controlling the G1 checkpoint can lead to both escape from senescence and cancer formation (3).

Published Papers

el at., Robust temporal changes of cellular senescence and proliferation after sciatic nerve injury. In *Neural Regen Res* on 2022 Jul by Yin-Ying Shen, Rui-Rui Zhang, et al..PMID: 34916445, , (2022)

[PMID:34916445](#)

el at., circHIPK3 prevents cardiac senescence by acting as a scaffold to recruit ubiquitin ligase to degrade HuR In *Theranostics* on 2022 Oct 31 by Fengzhi Ding, Lin Lu,et al..PMID:36438474, , (2022)

[PMID:36438474](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.