abcam

Product datasheet

Anti-CDKN2A/p14ARF antibody ab3642

18 References 3 Images

Overview

Product name	Anti-CDKN2A/p14ARF antibody
Description	Rabbit polyclonal to CDKN2A/p14ARF
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: HeLa cells. IHC-P: Lymphoma tissue.
General notes	**This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.** The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab3642 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

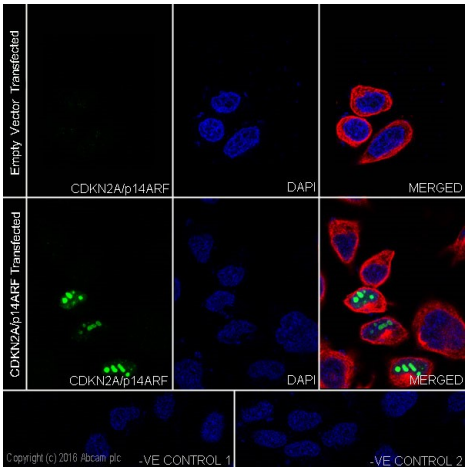
Application	Abreviews	Notes
IHC-P		1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 1 µg/ml.

Target

Relevance The gene for CDK2NA generates several transcripts/proteins which differ from each other in their first exons. Three of these transcripts are generated by alternative splicing (isoform 1 a.k.a p16INK4A, isoform 2 and isoform 3 a.k.a p12), two of which are known to function as inhibitors of CDK4 kinase. One other transcript that is generated from this gene contains an alternate reading frame (ARF), with the first exon located 20kb upstream of the remainder of the gene(isoform 4 a.k.a. p14ARF, p19ARF, ARF). In spite of the structural and some functional differences, all the proteins encoded by the CDKN2A gene are involved in cell cycle G1 control.

Cellular localization Cytoplasmic and Nuclear

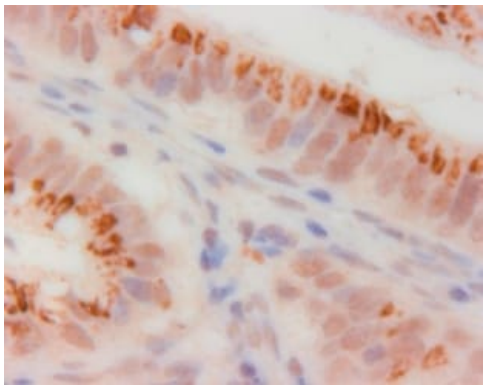
Images



Immunocytochemistry/ Immunofluorescence - Anti-CDKN2A/p14ARF antibody (ab3642)

Confocal image showing nuclear staining increased after HeLa cells transfected with CDKN2A/p14ARF.

ICC/IF image of ab3642 stained HeLa cells. The cells were 4% paraformaldehyde fixed and then incubated in 0.1% trixtonX-100 to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with primary antibody ab3642 at a dilution of 1/250. An AlexaFluor®594 goat anti-mouse secondary IgG (**ab150077**) was used at a 1/1000 dilution. Anti-tubulin (**ab7291**) and an AlexaFluor®594 goat anti-mouse IgG (**ab150120**) were used as counterstains, both at a dilution of 1/1000. DAPI was used to stain the cell nuclei blue.



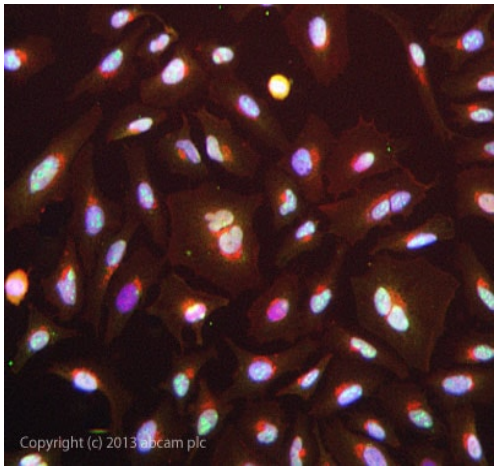
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDKN2A/p14ARF antibody (ab3642)

Image supplied as part of the review submitted by Joost van Galen.

Immunohistochemical analysis of human cervical adenocarcinomas tissue labelling p14 with ab3642 at 1/200 dilution in PBS/1% BSA. Staining was most prominent in the nuclei but other staining, most likely aspecific staining, was observed in apical vacuoles.

Dilutions of 1/100, 1/200 and 1/400 were tested.
1/100 dilution was a bit too weak and 1/400 gave too much background so in the end the dilution of 1/200 in PBS containing 1% BSA was used.

Several heat induced antigen retrieval methods were used (citrate and EDTA-Tris, both in microwave and autoclave).



Immunocytochemistry/ Immunofluorescence - Anti-CDKN2A/p14ARF antibody (ab3642)

ICC/IF image of ab3642 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab3642 at 1µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (**ab96899**) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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