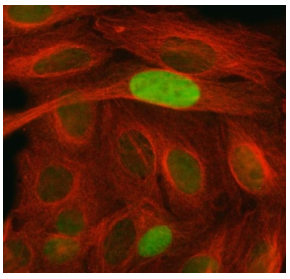
# CDKN1A Antibody / Cyclin-dependent kinase inhibitor 1 (RQ8115)

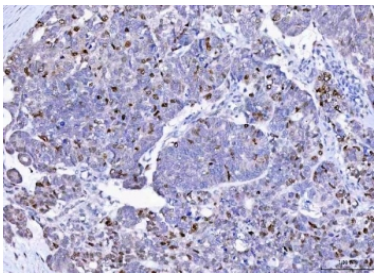
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ8115 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

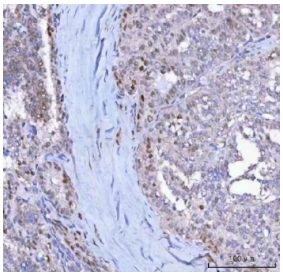
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Antigen affinity purified |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P38936 |
| **Localization** | Nuclear, cytoplasmic |
| **Applications** | Western Blot : 0.5-1ug/ml<br>Immunohistochemistry (FFPE) : 2-5ug/ml<br>Direct ELISA : 0.1-0.5ug/ml |
| **Limitations** | This CDKN1A antibody is available for research use only. |



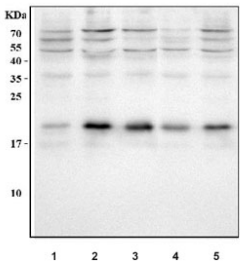
Immunofluorescent staining of FFPE human HeLa cells with CDKN1A antibody (green) and Tubulin beta mAb (red). HIER: steam section in pH6 citrate buffer for 20 min.



IHC staining of FFPE human ovarian cancer tissue with CDKN1A antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human thyroid cancer tissue with CDKN1A antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.




Western blot testing of human 1) HeLa, 2) HepG2, 3) MCF7, 4) U-2 OS and 5) SiHa cell lysate with CDKN1A antibody. Predicted molecular weight ~18 kDa, commonly observed at ~21 kDa.

## Description

This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene.

## Application Notes

Optimal dilution of the CDKN1A antibody should be determined by the researcher.

## Immunogen

E. coli-derived recombinant human protein (amino acids M1-R140) was used as the immunogen for the CDKN1A antibody.

## Storage

After reconstitution, the CDKN1A antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.