

## CDKN2A p14ARF antibody (pAb)

**Catalog Nos:** 61689, 61690

**RRID:** AB\_2793736

**Isotype:** IgG

**Application(s):** WB

**Reactivity:** Human

**Volumes:** 100 µl, 10 µl

**Purification:** Affinity Purified

**Host:** Rabbit

**Molecular Weight:** 18 kDa

**Background:** **CDKN2A p14ARF** (Cyclin-Dependent Kinase Inhibitor 2A) is capable of inducing cell cycle arrest in G1 and G2 phases. Acts as a tumor suppressor. Binds to MDM2 and blocks its nucleocytoplasmic shuttling by sequestering it in the nucleolus. This inhibits the oncogenic action of MDM2 by blocking MDM2-induced degradation of p53 and enhancing p53-dependent transactivation and apoptosis. Also induces G2 arrest and apoptosis in a p53-independent manner by preventing the activation of cyclin B1/CDC2 complexes. Binds to BCL6 and down-regulates BCL6-induced transcriptional repression. Binds to E2F1 and MYC and blocks their transcriptional activator activity but has no effect on MYC transcriptional repression. Binds to TOP1/TOPOI and stimulates its activity. This complex binds to rRNA gene promoters and may play a role in rRNA transcription and/or maturation. Interacts with NPM1/B23 and promotes its polyubiquitination and degradation, thus inhibiting rRNA processing. Interacts with COMMD1 and promotes its 'Lys63'-linked polyubiquitination. Interacts with UBE2I/UBC9 and enhances sumoylation of a number of its binding partners including MDM2 and E2F1. Binds to HUWE1 and represses its ubiquitin ligase activity. May play a role in controlling cell proliferation and apoptosis during mammary gland development. Isoform 6 may be involved in regulation of autophagy and caspase-independent cell death; the short-lived mitochondrial isoform is stabilized by C1QBP.

There are several transcripts encoding functionally different proteins from the CDKN2A gene. p16 INK4a, p16 gamma and p12 use the first exons to generate structurally related protein isoforms and function as CDK4 inhibitors. p14ARF is also encoded by the same CDKN2A gene but utilizes an alternative 1st exon which generates a protein that is structurally unrelated to the other proteins.

**Immunogen:** This antibody was raised against a peptide within the N-terminal region of human CDKN2A p14ARF.

**Buffer:** Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

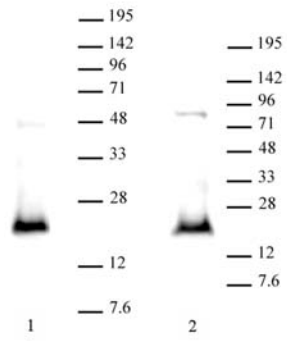
Applications Validated by Active Motif:

WB: 1:500 - 1:1,000 dilution

The addition of 0.1% Tween 20 in the blocking buffer and primary antibody incubation buffer is recommended to aid in detection by Western blot. Individual optimization may be required.

**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



**CDKN2A p14ARF antibody (pAb) tested by Western blot.**

Nuclear extract of HeLa cells (Lane 1, 25 µg) and nuclear extract of Saos cells (Lane 2, 40 µg) probed with CDKN2A p14ARF antibody (pAb) at a dilution of 1:500.