

Anti-p21 (WAF1, Cip1) Purified

Catalog Number: 14-6715

RUO: For Research Use Only

Product Information

Contents: Anti-p21 (WAF1, Cip1) Purified

 Catalog Number: 14-6715

Host/Isotype: Rabbit polyclonal

Formulation: 200 µg/ml rabbit polyclonal IgG in PBS, 0.1% sodium azide, 0.2% gelatin.

 Temperature Limitation: Store at 2-8°C.

 Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

Description

The polyclonal antibody reacts with mouse, rat, and human p21; the antibody was raised against a peptide mapping to the carboxy terminus of human p21. The progression through the cell cycle is regulated by cyclins and their cognate Cdk by promoting cell cycle transitions (1,2,3). This orderly progression can be inhibited by a family of proteins known as CDK inhibitors (CDIs) that bind to cyclin/Cdk complexes and halt cell division (3). p21 (also designated WAF1/Cip1) is one has been shown to inhibit the activity of each member of the cyclin/Cdk family and over expression of this protein inhibits the proliferation of mammalian cells (5). The expression of p21 is inducible by a wide range of stress stimuli and its transcription can be enhanced by p53 (6). Another member of the CDIs is p27 (also known as Kip1), which also sees up regulation in response to antimitogenic stimuli (7). The increased protein expression of p27 results in cellular arrest by binding to cyclin/Cdk complexes, like cyclin D1/Cdk4 (4,8). An additional CDI has been found to bind Cdk4 and Cdk6, p16 (INK4A), and when such complexes are formed, the progression of the cell cycle is halted (9). It has become increasingly clear that p16 is a very important tumor suppressor gene whose frequent loss occurs early in many human cancers. p16 is a major target in carcinogenesis that is rivaled in frequency only by p53 (10).

Applications Reported

Purified anti-mo/hu/rat p21 (WAF1/Cip1) poly has been reported for use in immunoprecipitation, immunoblotting (WB), and immunohistochemical staining.

Applications Tested

Purified anti-mo/hu/rat p21 (WAF1/Cip1) poly has been tested by immunoblotting (WB) (1:200 starting dilution).

References

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7. Slingerland J, Pagano M. 2000. Regulation of the cdk inhibitor p27 and its deregulation in cancer. *J Cell Physiol* 183(1):10-17.
8. Toyoshima H, Hunter T. 1994. p27, a novel inhibitor of G1 cyclin-Cdk protein kinase activity, is related to p21. *Cell* 78(1):67-74.
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10. Liggitt WH Jr, Sidransky D. 1998. Role of the p16 tumor suppressor gene in cancer. *J Clin Oncol* 16(3):1197-1206.

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