



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

### Certificate of Analysis and Data Sheet Rabbit anti- p21 antibody

**Catalog No.**  
130-10051

**Isotype:**  
Rabbit Ig G

**Speceis:**  
Human

**Accession No:**  
P38936

#### Description

The encode protein of p21 is the important intermediate by which p53/TP53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage. p21 binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions of p21 in the nuclear localization and assembly of cyclin D-CDK4 complex, promotes its kinase activity towards RB1. At higher stoichiometric ratios, p21 inhibits the kinase activity of the cyclin D-CDK4 complex.

#### Applications

Table Summary of antibody applications and working conditions

| Options<br>Functions          | YES | NO | Not determined | Recommended<br>Work dilution or<br>concentration |
|-------------------------------|-----|----|----------------|--|
| ELISA                         | *   |    |                | 1:80000 (at least detecting 12.5 ng/ml)          |
| Western Blotting              |     |    | *              |  |
| Enzyme<br>Immunoassay(EIA)    |     |    | *              |  |
| Immunohistology -<br>paraffin |     |    | *              |  |
| Immunohistology -<br>resin    |     |    | *              |  |
| Immunoprecipitation           |     |    | *              |  |
| Flow Cytometry                |     |    | *              |  |
| Neutralization                |     |    | *              |  |

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

Immunogen was synthetic peptide derived from human p21. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum by ammonium sulphate precipitation, and followed by Protein A/G affinity chromatography.

### **Binding Activity**

The antibody can specifically bind to its immunogen, and did not show any cross reactivity with unrelated antigens in ELISA. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat p21 was not tested yet.

### **Reconstitution**

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, liking Sodium Azide. *It final concentration is indicated in shipping vial.*

The antibody is stable for at least years from the data of receipt when stored at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at  $4^{\circ}\text{C}$ . **Please avoid freeze-thaw cycles.**

### **Storage**

Keep it at  $4^{\circ}\text{C}$  if intended for use within a month. Store at  $-20^{\circ}\text{C}$  if over months. **Minimize freezing and thawing when use.**

### **Reference**

Harper J.W., Adami G.R., Wei N., Keyomarsi K., Elledge S.J. The p21 Cdk-interacting protein Cip1 is a potent inhibitor of G1 cyclin-dependent kinases. *Cell* 75:805-816(1993)

Jaffer ZM, et al.. (2002) p21-activated kinases: three more join the Pak. *Int J Biochem Cell Biol.* 34(7):713-7.

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