Product Datasheet

p21/CIP1/CDKN1A Antibody (WA-1 (HJ21))
NBP2-29463

Unit Size: 0.1 mg

Store at 4C.

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Updated 4/27/2017 v.20.1
# NBP2-29463

**p21/CIP1/CDKN1A Antibody (WA-1 (HJ21))**

## Product Information

<table>
<thead>
<tr>
<th><strong>Unit Size</strong></th>
<th>0.1 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concentration</strong></td>
<td>Please see the vial label for concentration. If unlisted please contact technical services.</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Store at 4C.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone</strong></td>
<td>WA-1 (HJ21)</td>
</tr>
<tr>
<td><strong>Preservative</strong></td>
<td>0.05% Sodium Azide</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1 Kappa</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A or G purified</td>
</tr>
<tr>
<td><strong>Buffer</strong></td>
<td>10mM PBS and 0.05% BSA</td>
</tr>
<tr>
<td><strong>Target Molecular Weight</strong></td>
<td>21 kDa</td>
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</tbody>
</table>

## Product Description

| **Host** | Mouse |
| **Gene ID** | 1026 |
| **Gene Symbol** | CDKN1A |
| **Species** | Human, Mouse, Rat, Primate |

### Specificity/Sensitivity

This MAb recognizes a 21kDa protein, identified as the p21WAF1 tumor suppressor protein. This MAb is highly specific to p21 and shows no cross-reaction with other closely related mitotic inhibitors. p21WAF1 is a specific inhibitor of cdk s and a tumor suppressor involved in the pathogenesis of a variety of malignancies. The expression of this gene acts as an inhibitor of the cell cycle during G1 phase and is tightly controlled by the tumor suppressor protein p53. Its expression is induced by the wild type, but not mutant, p53 suppressor protein. Normal cells generally display a rather intense nuclear p21 expression. Loss of p21 expression has been reported in many carcinomas (gastric carcinoma, non-small cell lung carcinoma, thyroid carcinoma). In ELISA, MAb WA-1 is useful either as a solid phase or for detection of p21 protein.

## Immunogen

Recombinant human p21 protein was used as immunogen to generate the antibody.

## Product Application Details

### Applications

Western Blot, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin

### Recommended Dilutions

- Western Blot, Flow Cytometry 0.5-1ug/million cells, Immunohistochemistry 0.5-1ug/ml, Immunocytochemistry/Immunofluorescence 1-2ug/ml, Immunohistochemistry-Paraffin 0.5-1ug/ml, Immunohistochemistry-Frozen 0.5-1ug/ml

### Application Notes

Human Chromosome Location: 6p21.31 Use in ELISA has been reported in literature. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors. Use in Western blot reported in scientific literature (PMID 28137862).
**Images**

Publications


Details:
WB (NIH3T3, MEF, ES EPL cells), Figs 1D, 3A.

Rossner P Jr, Binkova B, Milcova A et al. Air pollution by carcinogenic PAHs and plasma levels of p53 and p21(WAF1) proteins. Mutat Res. 2007 Jul 1 [PMID: 17408702] (Human)

Details:
Direct ELISA (human blood plasma), CLONE SPECIFIC Tables 1-3. Note: The specificity of the p21 antibody for p21 was validated with recombinant p21 by direct ELISA in Tables 1-3.


Details:
Direct ELISA (human blood plasma), Tables 3-5; WB (primary human lung fibroblasts), Fig 3. The specificity of the p21 antibody for p21 was validated with recombinant p21 by direct ELISA in Tables 3-5.


Details:
Human keratinocyte organotypic raft cultures: IHC (paraffin), Fig3A; WB, Fig 3B.


Details:
WB (SAOS), Fig 5.

Scott MT, Ingram A, Ball KL. PDK1-dependent activation of atypical PKC leads to degradation of the p21 tumour modifier protein. EMBO J. 2002 Dec 16 [PMID: 12485998] (WB)

Details:
WB: (HeLa), Fig 3D.


Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

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