P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.ScyTek.com

# p21WAF1; Clone CIP1/4377R

| Catalog Number | Format | Volume |
|---|---|---|
| A00167-0002 | (Ready-To-Use) | 2 ml |
| A00167-0007 | (Ready-To-Use) | 7 ml |
| A00167-0025 | (Ready-To-Use) | 25 ml |
| A00167-C.1 | (Concentrate) | 0.1 ml |
| A00167-C | (Concentrate) | 1 ml |

## Intended Use

For In Vitro Diagnostic use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy. Any diagnostic interpretation of the results of this antibody is to be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

## Description

**Titer/Working Dilution:** Ready-to-Use: No further dilution required.
Concentrate: Suggested dilution is 1:50-100

**Species:** Rabbit

**Immunogen:** Synthetic peptide corresponding to p21 residues within aa1-100 of p21 was used as an immunogen.

**Clone:** CIP1/4377R

**Isotype:** IgG

**Entrez Gene ID:** 1026 (Human)

**Hu Chromosome Loc.:** 6p21.31

**Synonyms:** Activating Fragment 1, CAP20, CDK-interacting protein 1, CDKI, CDKN1, CDKN1A, CIP1, Cyclin-dependent kinase inhibitor 1A (p21, CIP1), DNA Synthesis Inhibitor, MDA6, Melanoma Differentiation Associated Protein 6, p21Cip1/Waf1,PIC1, SDI1, SLC12A9, Wild type p53 activated fragment 1 (WAF1).

**Mol. Wt. of Antigen:** 21kDa

**Format:** Ready-To-Use antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Concentrate antibody is provided at 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% Sodium Azide.

**Specificity:** This antibody reacts with a 21kDa protein, identified as the p21WAF1 tumor suppressor protein. This antibody is highly specific to p21 and shows no cross-reaction with other closely related mitotic inhibitors.

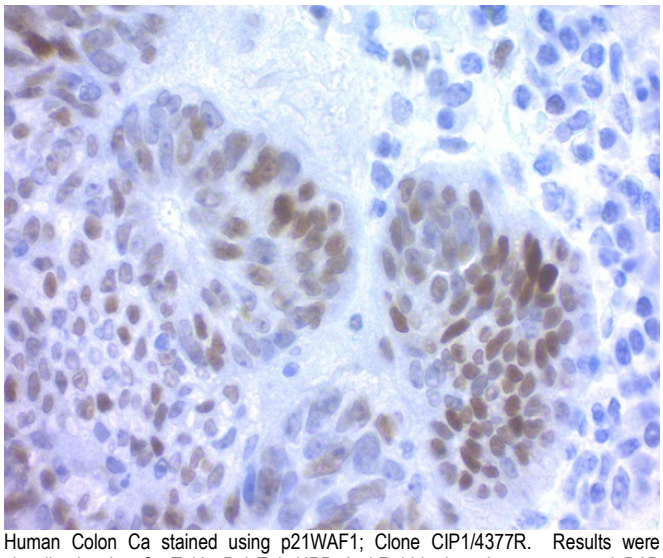
**Background:** p21WAF1 is a specific inhibitor of cdks and a tumor suppressor involved in the pathogenesis of a variety of malignancies. The expression of this gene acts as an inhibitor of the cell cycle during G1 phase and is tightly controlled by the tumor suppressor protein p53. Its expression is 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).

**Species Reactivity:** Human, Others-not known

**Positive Control:** HeLa cells. Skin, Colon, or Breast Carcinoma.

**Cellular Localization:** Nuclear

**Microbiological State:** Nonsterile.



Human Colon Ca stained using p21WAF1; Clone CIP1/4377R. Results were visualized using ScyTek's PolyTek HRP Anti-Rabbit detection system and DAB Chromogen/Substrate Kit (High Contrast). Magnification 600X

## Materials and Reagents Required but not Provided

1. Control tissue and reagents
2. Xylene, graded alcohols, and deionized/distilled water
3. Antibody Diluent.
4. IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
5. Wash buffer for rinses (ScyTek Cat# TBT500)
6. HIER Retrieval Solution
7. Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
8. Mounting medium and coverslips

**Note:** ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.

## Procedure

1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with pH 8-9 HIER Solution (see ScyTek catalog# ETA or TES for instructions).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

## Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Storage: 2° C 8° C

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## Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

## Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

## References

1. Harper, J.W. et al. 1993. The p21 Cdk-interacting protein Cip1 is a protein inhibitor of G1 cyclin-dependent kinases. Cell 75: 805-816

## Warranty

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

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