

Code No. 11104

**Anti-Human  
p16<sup>INK4a</sup> (1H4) Mouse IgG MoAb**

Volume : 100 µg

**Introduction** : p16<sup>INK4a</sup> is a cyclin-dependent kinase (CDK) inhibitor, and binds CDK4 and CDK6 and inhibits their kinase activity. It is also called MTS1 and INK4a, and p15<sup>INK4b</sup> (MTS2), p18<sup>INK4c</sup> and p19<sup>INK4d</sup> are other members of the INK4 family. p16<sup>INK4a</sup> is a tumor suppressor gene, and inactivation is seen in many cancer tissues and cancer cell lines as a result of mutations or hypermethylation. However, overexpression of p16<sup>INK4a</sup> has been reported in several tumors, including cervical cancer. Infection with human papilloma virus (HPV) plays a large role in the cases of cervical cancer. Assessment of overexpression of p16<sup>INK4a</sup> by immunohistochemistry methods has been shown to be more useful in research of cervical dysplasia than existing methods of detection of high-risk-group HPV infection.

**Antigen** : Recombinant protein of human p16

**Source** : Mouse-Mouse hybridoma  
(X63 - Ag 8.653 × BALB/c mouse spleen cells)

**Clone** : 1H4      **Subclass** : IgG<sub>1</sub>

**Purification** : Affinity purified with Protein A

**Form** : Lyophilized product from PBS containing 1 % BSA and 0.05 % NaN<sub>3</sub>

**How to use** : 1.0 mL deionized water will be added to the product, then its concentration comes to 100 µg/mL

**Stability** : Lyophilized product, 5 years at 2 - 8 °C  
: Solution, 2 years at -20 °C

**Application** : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues after microwave treatment (10 min, 10 mM citrate buffer, pH 6.0). The recommended concentration is 5 µg/mL, however, the concentration should be optimized by each laboratory.  
: This antibody can be used for western blotting in concentration of 1 µg/mL  
: This antibody can be used for immuno-precipitation in concentration of 2 µg /test.

**Reference** : 1. Sano, T., Oyama, T., Kashiwabara, K., Fukuda, T., Nakajima, T. Expression status of p16 protein is associated with human papillomavirus oncogenic potential in cervical and genital lesions. *Am. J. Pathol.* 153:1741-1748 1998.  
2. Sano, T., Oyama, T., Kashiwabara, K., Fukuda, T., Nakajima, T. Immunohistochemical overexpression of p16 protein associated with intact retinoblastoma protein expression in cervicalcancer and cervical intraepithelial neoplasia. *Pathol. Int.* 48:580-585 1998.  
3. Yoshida, T., Sano, T., Kanuma, T., Fukuda, T., Nakajima, T. Usefulness of Liquid-based cytology specimens for the immunocytochemical study of p16 expression and human papillomavirus testing. *Cancer Cytopathol.* 102:100-108 2004.

*For research use only, not for use in diagnostic procedures.*

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**Anti-Human  
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