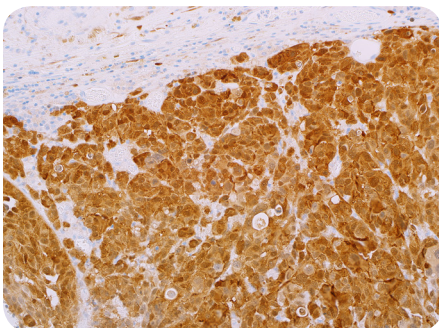
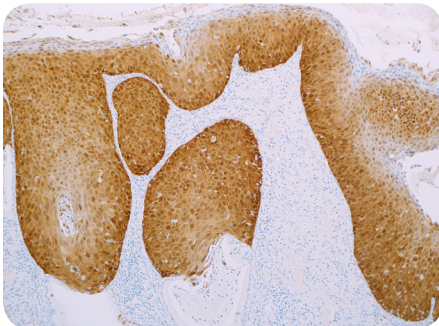
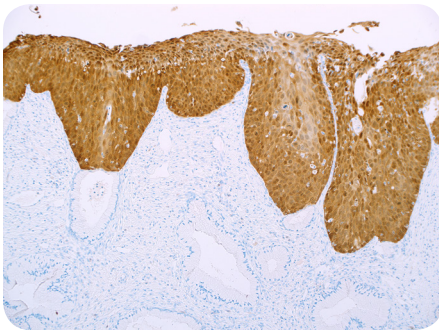


Cell Marque™ Tissue Diagnostics

p16^{INK4A} (JC2) also known as 16P04



Top: p16^{INK4A} on cervix / CIN II
 Middle: p16^{INK4A} on cervix / CIN II
 Bottom: p16^{INK4A} on melanoma

Cervical intraepithelial neoplasia (also called CIN or cervical dysplasia) is a precancerous condition defined by the presence of abnormal squamous epithelial cells on the lining of the cervix or endocervical canal. This condition is most commonly the result of the presence of specific strains of human papillomavirus (HPV) and is graded between 1 and 3 depending on the severity of the dysplasia. When abnormal cells are observed in a Pap smear, a biopsy may be taken of the cervix to be tested for CIN by means of immunohistochemistry. A panel of immunohistochemical stains, including Ki-67, heat shock protein 27, stathmin, cytokeratin 17, and p16, may be run on the biopsy to determine whether CIN is present and what may be the severity of the neoplasm. High grade CIN (CIN II and CIN III), if untreated, may progress to invasive cervical squamous carcinoma, which is the third most common malignancy in women in the world.¹⁻⁵

p16 is a cyclin dependent kinase inhibitor expressed in various tissues. The p16^{INK4A} is a specific tumor suppressor protein found in various neoplasms, including cervical dysplasia and squamous carcinomas caused by high risk HPV (types 16 and 18) infection. p16^{INK4A} immunohistochemistry is the most common test run on cervical biopsies to determine the presence of cervical intraepithelial neoplasms caused by HPV and is considered a surrogate test for HPV testing in squamous intraepithelial neoplasms. This makes p16 one of the essential antibodies used in a panel for differential detection of CIN versus mimics.¹⁻⁵

Benefits of p16^{INK4A} (JC2)

- *In vitro* diagnostic
- Nuclear and cytoplasmic visualization
- Compatible with multiple automation systems
- Published clone
- High sensitivity and specificity for squamous intraepithelial neoplasms in the cervix, anal canal, throat, and other sites of HPV infection

Ordering Information

Volume	Cat. No.
0.1 mL concentrate	416M-14
0.5 mL concentrate	416M-15
1 mL concentrate	416M-16
1 mL predilute	416M-17
7 mL predilute	416M-18
25 mL predilute	416M-10

References

1. A Hebbbar, et al. J Lab Physicians. 2017; 9(2): 104-110.
2. Redman R, et al. Arch Pathol Lab Med. 2008; 132(5):795-9.
3. O'Neill CJ, et al. Adv Anat Pathol. 2006; 13(1):8-15.
4. C Romagosa, et al. Oncogene. 2011; 30(18):2087.
5. <https://www.mayoclinic.org/diseases-conditions/cervical-cancer/expert-answers/cervical-dysplasia/faq-20058142>