

Anti-HPV16 L1 Monoclonal Antibody(Conformational Antibody)

catalog number: E-AB-V1240

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	HPV
Immunogen	Recombinant HPV16 L1 virus like particle
Host	Mouse
Isotype	IgG1
Purification	Protein A Affinity
Buffer	0.2 µm filtered solution in PBS.

Applications Recommended Dilution

ELISA	1:1000-1:2000
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Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

Background

Papillomaviruses are highly species-specific and can cause squamous epithelial and fibroepithelial tumors in their hosts. Human papillomaviruses (HPVs) are associated with benign and malignant hyperproliferation of cells, with a wide variety of clinical manifestations ranging from condyloma acuminata to cervical carcinoma. HPV infection is the most common sexually transmitted disease. More than 4 HPV types so far identified are known to infect the genital tract. Genital HPVs are divided into 'low risk' HPVs such as HPV 6 and 11 and 'high risk' HPV types such as 16, 18, 31, 33, 35, 39, 45 and 52, 58 which are responsible for more than 95% of HPV-induced cervical cancer. Vaccination against these high risk types seems to be the most feasible prevention for cervical cancer. Indeed, clinical trials have shown prophylactic HPV vaccines to be effective against HPV infection, cervical intraepithelial neoplasia (CIN), and genital warts, but protection is type-specific and the currently developed vaccines target only a few types. These vaccines are based on papillomavirus-like particles (VLPs) composed of the major capsid protein, L1. The L1 protein self assembles into VLPs when expressed at high levels in eukaryotic or insect cells. VLPs are composed of 36 copies of L1 protein organized into 72 pentamers, so called capsomeres, to form particles which are immunologically indistinguishable from native virions. Experimentally induced VLP antisera have been shown to be mostly typespecific with respect to neutralization. Minor cross-neutralization has been observed only between closely related HPV types, e.g. HPV6 and 11, HPV18 and 45, or HPV16 and 31. Structure analysis has revealed the presence of several hyper variable loops on the outer surface of the capsid. With a few exceptions, all HPV-neutralizing monoclonal antibodies analyzed so far are type-specific and recognize conformational epitopes within surface-exposed hyper variable loops of the major capsid protein L1.

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