

Rabbit Anti-HPV31 E7 antibody

SL10203R

Product Name	HPV31 E7
Chinese Name	人类乳头状瘤病毒 31 E7 抗体
Alias	VE7 HPV31; Protein E7; E7; Human Papilloma Virus; Human papillomavirus type 31 E7; Human papillomavirus type 31 (E7); Human papillomavirus type 31 E7; Human papillomavirus type 31 E7 protein; Protein E7; HPV31 E7 protein.
Research Area	Tumour immunology Bacteria and viruses
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:HPV31) IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	11kDa
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from HPV31 E7 protein: 5-60/98
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	(predicted:HPV31)1M TBS(pH7.4) with 1% BSA, (predicted:HPV31)3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	Human papilloma viruses (HPVs) can be classified as either high risk or low risk according to their association with cancer. HPV16 and HPV18 are the

most common of the high risk group while HPV6 and HPV11 are among the low risk types. Approximately 90% of cervical cancers contain HPV DNA of the high risk types. Mutational analysis have shown that the E6 and E7 genes of the high risk HPVs are necessary and sufficient for HPV transforming function. The specific interactions of the E6 and E7 proteins with p53 and pRB, respectively, correlate with HPV high and low risk classifications. The high risk HPV E7 proteins bind to pRB with a higher affinity than do the low risk HPV proteins, and only the high risk HPV E6 proteins form detectable complexes with p53 in vitro. Human papillomaviruses (HPV) are small DNA viruses which infect epithelia of the skin and mucosa. Over 90 types have been identified and they mostly cause a variety of benign lesions such as warts and verrucae. However, some subtypes, notably types 16 and 18, 31 and 33, have been confirmed as agents which cause cervical cancer.

Function:

E7 protein has both transforming and trans-activating activities. Disrupts the function of host retinoblastoma protein RB1/pRb, which is a key regulator of the cell cycle. Induces the disassembly of the E2F1 transcription factors from RB1, with subsequent transcriptional activation of E2F1-regulated S-phase genes. Inactivation of the ability of RB1 to arrest the cell cycle is critical for cellular transformation, uncontrolled cellular growth and proliferation induced by viral infection. Stimulation of progression from G1 to S phase allows the virus to efficiently use the cellular DNA replicating machinery to achieve viral genome replication. Interferes with histone deacetylation mediated by HDAC1 and HDAC2, leading to activation of transcription.

Subunit:

Homodimer. Homooligomer. Interaction with host RB1 induces the aberrant dissociation of RB1-E2F1 complex thereby disrupting RB1's activity. Binds to CHD3 through its zinc-finger domain. Forms a complex with CHD3 and HDAC1, thereby altering the action of host histone deacetylation. A similar complex involving E7, CHD3 and HDAC2 might also form (By similarity).

Subcellular Location:

Host nucleus matrix (By similarity).

Similarity:

Belongs to the papillomaviridae E7 protein family.

SWISS:

P17387

Gene ID:

N/A



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Database links:
UniProtKB/Swiss-Prot: P17387.1