



Rabbit Anti-HPV16 E7 antibody

SL10446R

Product Name:	HPV16 E7
Chinese Name:	人类乳头状瘤病毒16-E7抗体
Alias:	E7; HPV16 E7 protein; Human Papilloma Virus; Human papillomavirus type 16 E7; Human papillomavirus type 16 E7; Protein E7; Human Papillomavirus 16 (E7); HPV16 E7; E7 protein (HPV16); VE7 HPV16; HPV16-E7.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,HPV16
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	60kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human HPV16 E7:21-98/98
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
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.

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. Interacts with E2; this interaction inhibits E7 oncogenic activity.

Similarity:

Belongs to the papillomaviridae E7 protein family.

SWISS:

P03129

Gene ID:

1489079

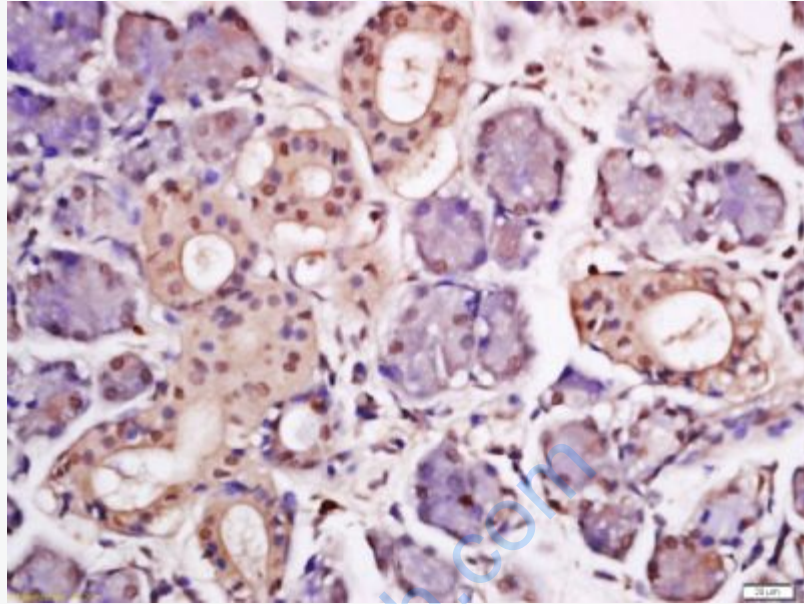
Database links:

[Entrez Gene: 1489079](#)HPV16

[SwissProt: P03129](#)HPV16

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

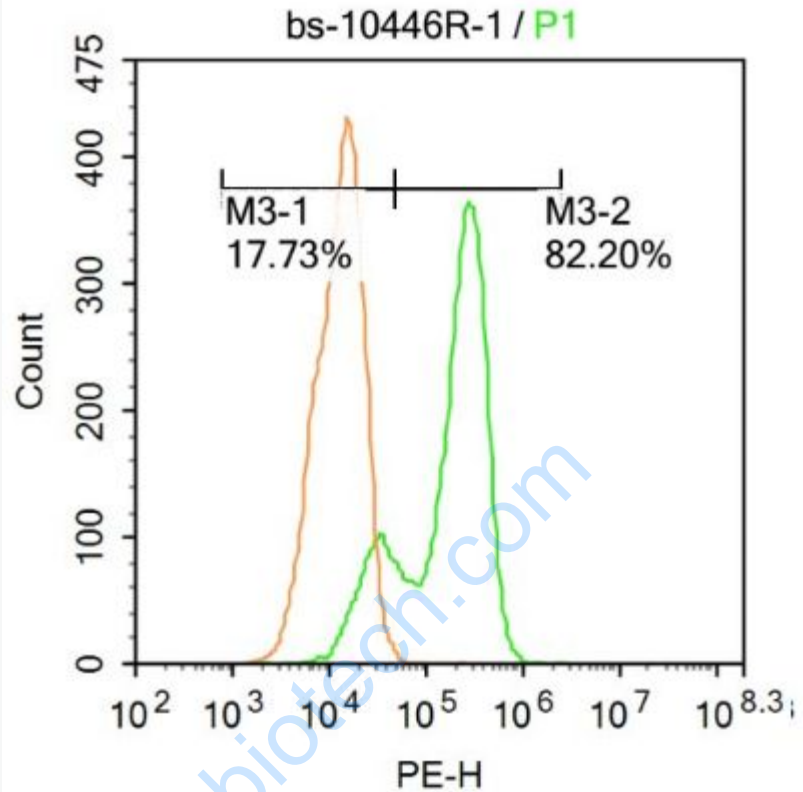


Picture:

Tissue/cell: Human parotid tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-HPV16 E7 Polyclonal Antibody, Unconjugated(SL10446R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: Hela.

Primary Antibody (green line): Rabbit Anti-HPV16 E7 antibody (SL10446R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

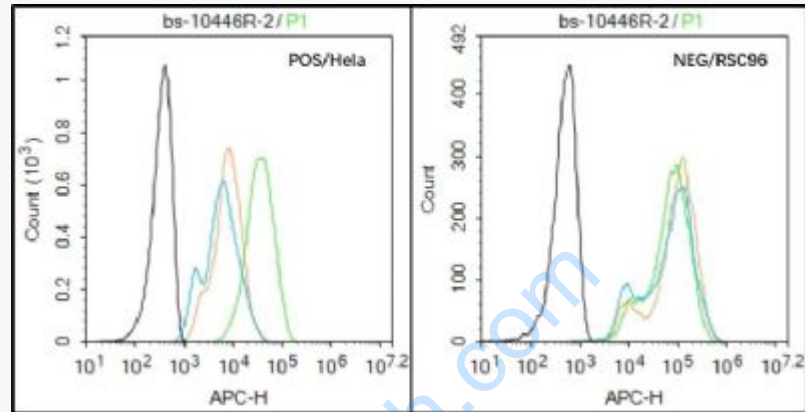
Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C . The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room

temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Black line : Positive blank control (Hela); Negative blank control (RSC96)

Green line : Primary Antibody (Rabbit Anti-HPV16 E7 antibody (SL10446R))

Orange line : Isotype Control Antibody (Rabbit IgG) .

Blue line : Secondary Antibody (Goat anti-rabbit IgG-AF647)

Hela (Positive) and RSC96 (Negative control) cells (black) were fixed with 4% PFA for 10 min at room temperature, permeabilized with 90% ice-cold methanol for 20 min at -20°C , and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with HPV16 E7 Antibody (SL10446R) at 1:50 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody (blue) incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).