



Anti-E7 protein Polyclonal Antibody

Category: polyclonal Antibody

Catalog #: AB4B1111

Species Reactivity: Dog Canine oral papillomavirus.

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of Dog Canine oral papillomavirus E7 protein

Description: E7 protein has both transforming and trans-activating activities. E7 protein disrupts the function of host retinoblastoma protein RB1/pRb, which is a key regulator of the cell cycle. E7 protein induces the disassembly of the E2F1 transcription factors from RB1, with subsequent transcriptional activation of E2F1-regulated S-phase genes. E7 protein 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. E7 protein interferes with histone deacetylation mediated by HDAC1 and HDAC2, leading to activation of transcription. 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. E7 protein 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. E7 protein belongs to the papillomaviridae E7 protein family.

Reference:

Isegawa,N., et al, Int. J. Oncol. 7, 155-159 (1995) Delius,H., et al, Virology 204 (1), 447-452 (1994) Isegawa,N., et al, Gene 146 (2), 261-265 (1994)

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