



Rabbit Anti-SV40 VP1 antibody

SL7390R

Product Name:	SV40 VP1
Chinese Name:	猴病毒衣壳蛋白VP1抗体
Alias:	Capsid protein VP1; Major capsid protein VP1; Major structural protein VP1; VP1 SV40; Simian Virus 40 SV40 VP1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Simian Virus 40 (SV40)
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=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:	40kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SV40 VP1:251-350/362
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:	VP1 is one of three simian virus 40 (SV40) capsid proteins. VP1 assembles into pentamers which have a central cavity that contains a copy of one of the other capsid proteins, VP2 or VP3. This complex is then imported into the cell nucleus. Here, 72 of the complexes assemble around the newly synthesised viral genome to form the icosahedral capsid.

Function:

Forms an icosahedral capsid with a T=7 symmetry and a 40 nm diameter. The capsid is composed of 72 pentamers linked to each other by disulfide bonds and associated with VP2 or VP3 proteins. Binds to N-glycolylneuraminic analog of the ganglioside GM1 on the cell surface to provide virion attachment to target cell. Once attached, the virion is internalized by caveolin-mediated endocytosis and traffics to the endoplasmic reticulum. Inside the endoplasmic reticulum, the protein folding machinery isomerizes VP1 interpentamer disulfide bonds, thereby triggering initial uncoating. Next, the virion uses the endoplasmic reticulum-associated degradation machinery to probably translocate in the cytosol before reaching the nucleus. Nuclear entry of the viral DNA involves the selective exposure and importin recognition of VP2/Vp3 nuclear localization signal. The assembly takes place in the cell nucleus. Encapsulates the genomic DNA and participates in rearranging nucleosomes around the viral DNA. The viral progenies exit the cells by lytic release.

Subunit:

Homomultimer; disulfide-linked. The virus capsid is composed of 72 icosahedral units, each one composed of five disulfide-linked copies of VP1. Interacts with agnoprotein. Interacts with minor capsid proteins VP2 and VP3. Interacts with host HSPA8; this interaction probably participates in virus assembly. Interacts with host SP1; this interaction enhances the efficiency of viral packaging. By similarity4 Publications.

Subcellular Location:

Virion. Host nucleus. Host endoplasmic reticulum. Note=Following host cell entry, the virion enters into the endoplasmic reticulum through a calveolar-dependent pathway. Then, viral DNA is translocated to the nucleus. Shortly after synthesis, a nuclear localization signal directs VP1 to the cell nucleus where virion assembly occurs.

Similarity:

Belongs to the polyomaviruses coat protein VP1 family.

SWISS:

P03087

Gene ID:

1849530

Database links:

[SwissProt: P03087](#) Simian Virus 40

[Gene ID: 1489530](#) Simian Virus 40

Important Note:

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

