abcam

Product datasheet

Recombinant Simian Virus 40 Simian Virus 40 Major Capsid VP1 protein ab74565

1 Abreviews 1 Image

Description

Product name	Recombinant Simian Virus 40 Simian Virus 40 Major Capsid VP1 protein
Purity	> 85 % SDS-PAGE. Purified by ultracentifugation
Expression system	Saccharomyces cerevisiae
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Simian Virus 40
Sequence	MKMAPTKRKGSCPGAAPKKPKEPVQVPKLVIKGGIEVLG VKTGVDSFTEV ECFLNPQMGNPDEHQKGLSKSLAAEKQFTDDSPDKEQL PCYSVARIPLPN LNEDLTCGNILMWEAVTVKTEVIGVTAMLNLHSGTQKTHE NGAGKPIQGS NFHFFAVGGEPLELQGVLANYRTKYPAQTVTPKNATVDS QQMNTDHKAVL DKDNAYPVECWVPDPSKNENTRYFGTYTGGENVPPVLHI TNTATTVLLDE QGVGPLCKADSLYVSAVDICGLFTNTSGTQQWKGLPRYF KITLRKRSVKN PYPISFLLSDLINRRTQRVDGQPMIGMSSQVEEVRVYEDTE ELPGDPDMI RYIDEFGQTTTRLQ

Specifications

Our **Abpromise guarantee** covers the use of **ab74565** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	ELISA
	Western blot
	SDS-PAGE

Form	Lyophilized

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C. Constituent: PBS
Reconstitution	Reconstitute with deionized H_2O.

General Info

Relevance	Simian virus 40 (SV40) is a small, non enveloped DNA virus with an icosahedral capsid of 45 nm. The simian virus 40 capsid is composed of 72 pentamers of VP1, the major protein of SV40. These pentamers are arranged in a T=7d icosahedral surface lattice, which is maintained by three types of appropriately arranged, non-equivalent interactions between the pentamers. Simian Virus 40 Major Capsid VP1 binds to N-glycolylneuraminic analog of the ganglioside GM1 on the cell surface to provide virion attachment to target cell. Once attached, the virion enters a caveolae 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. 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.
Cellular localization	Virion. Nucleus. 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.

Images

SDS-PAGE - Recombinant Simian Virus 40 (SV40) Simian Virus 40 Major Capsid VP1 protein (ab74565)

SDS-PAGE showing ab74565 at approximately 44kDa (4.2µg/lane)

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