

## Recombinant AAV2 VP1 Protein, Strep/SUMO/His-tagged

Cat. No. VP1-04A Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant AAV-2 VP1 Protein with a Strep/SUMO/His tag was expressed in E. coli.
<b>Species</b>	AAV2
<b>Source</b>	E.coli
<b>Description</b>	Capsid protein self-assembles to form an icosahedral capsid with a T=1 symmetry, about 22 nm in diameter, and consisting of 60 copies of three size variants of the capsid protein VP1, VP2 and VP3 which differ in their N-terminus. The capsid encapsulates the genomic ssDNA. Binds to host cell heparan sulfate and uses host ITGA5-ITGB1 as coreceptor on the cell surface to provide virion attachment to target cell. This attachment induces virion internalization predominantly through clathrin-dependent endocytosis. Binding to the host receptor also induces capsid rearrangements leading to surface exposure of VP1 N-terminus, specifically its phospholipase A2-like region and putative nuclear localization signal(s). VP1 N-terminus might serve as a lipolytic enzyme to breach the endosomal membrane during entry into host cell and might contribute to virus transport to the nucleus.
<b>Molecular Mass</b>	96.81 kDa
<b>AA Sequence</b>	MNWSHPQFEKSSGSSGGHHHHHHGGSGGSGSDSEVNQEAKPEVKPEVKPETHIN LKVSDGSSEIFFKIKKTTPLRRLMEAFKRQGKEMDSLRFLYDGIRIQADQAPEDLDM EDNDIIEAHREQIGGLNSSSVDMAADGYLPDWLEDTLSEGIRQWWKLKPGPPPPKP

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AERHKDDSRGLVLPGYKYLGPFNGLDKGEPVNEADAAALEHDKAYDRQLDSDGNP  
 YLKYNHADADEFQERLKEDTSFGGNLGRAVFQAKKRVLLEPLGLVEEPVKTAPGKKRP  
 VEHSPVEPDSSSGTGKAGQQPARKRLNFGQTGDADSVDPQPPLGQPPAAPSGLGT  
 NTMATGSGAPMADNNEGADGVGNSSGNWHCDSTWWMGDRVITSTRTWALPTYNN  
 HLYKQISSQSGASNDNHYFGYSTPWGYFDFNRFHCHFSPRDWQRLINNNWGFRPK  
 RLNFKLFNIQVKEVTQNDGTTTIANNLTSTVQVFTDSEYQLPYVLGSAHQGCLPPFP  
 ADVFMVPQYGYLTLNNGSQAVGRSSFYCLEYFPSQMLRTGNNFTFSYTFEDVPFHS  
 SYAHSQSLDRLMNPLIDQYLYLSRTNTPSGTTTQSRLQFSQAGASDIRDQSRNWL  
 PGPCYRQQRVSKTSADNNNSEYSWTGATKYHLNGRDSLVPNGPAMASHKDDEEK  
 FFPQSGVLIFGKQGSEKTNDIEKVMITDEEEIRTTNPVATEQYGSVSTNLQRGNRQ  
 AATADVNTQGVLPGMVWQDRDVYLQGPWAKIPHTDGHFHPSPMLGGFGLKHPPP  
 QILIKNTPVPANPSTTFSAAKFASFITQYSTGQVSVEIEWELQKENSKRWNPEIQYTS  
 NYNKSVNVDFTVDTNGVYSEPRPIGTRYLTRNL

**Purity** > 85% by SDS-PAGE

**Storage** Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Concentration** 0.5 mg/mL

**Storage Buffer** PBS, pH 7.4

## GENE INFORMATION

**Gene Name** [AAV2gp05 major coat protein VP1 \[ Adeno-associated virus - 2 \]](#)

**Official Symbol** [AAV2gp05](#)

**Synonyms** AAV2gp05; major coat protein VP1; major coat protein VP1

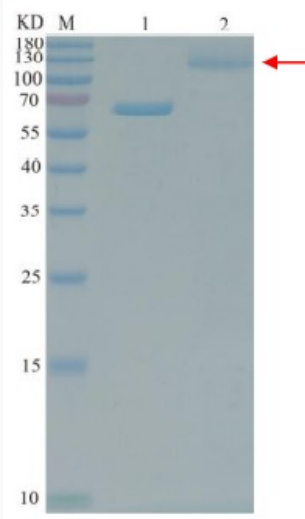
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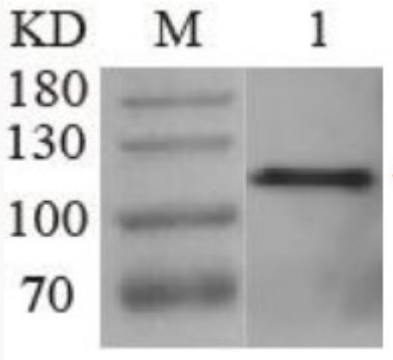
<b>Gene ID</b>	4192017
<b>Protein Refseq</b>	YP_680426
<b>UniProt ID</b>	P03135

**SDS-PAGE**



Lane 1: 0.5 mg/mL BSA  
Lane 2: Purified protein

**WB**



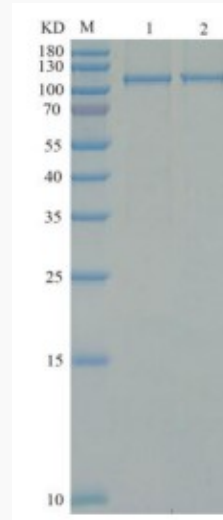
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Lane 1: purified protein

SDS-PAGE




M: Protein ladder

1: Sample before digestion

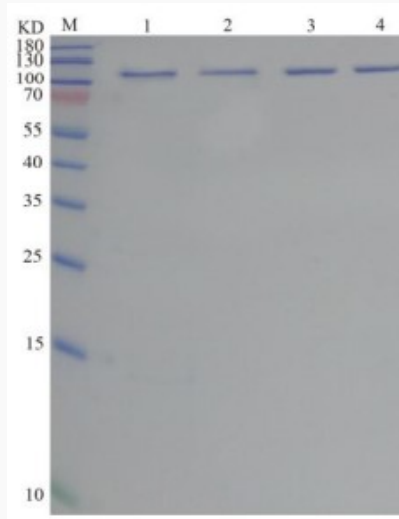
2: Sample after digestion

The mass ratio of protein to enzyme is 100:1, digested in water bath at 30 centigrade for 4h.

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M: Protein ladder

The mass ratio of protein to enzyme is 400:1, digested in water bath at 30 centigrade for 2h.

1: Sample before digestion

2: Sample after digestion


The mass ratio of protein to enzyme is 100:1, digested in water bath at 30 centigrade overnight.

3: Sample before digestion

4: Sample after digestion

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