

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

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

SPECIFICATION

Product Overview	Recombinant AAV-2 VP1 Protein with a Strep/SUMO/His tag was expressed in E. coli.
Species	AAV2
Source	E.coli
Description	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.
Molecular Mass	96.81 kDa
AA Sequence	MNWSHPQFEKSSGSSGGHHHHHHGGSGGSGSDSEVNQEAKPEVKPEVKPETHIN LKVSDGSSEIFFKIKKTTPLRRLMEAFKRQGKEMDSLRFlyDGIRIQADQAPEDLDM EDNDIIEAHREQIGGLNSSSVDMAADGYLPDWLEDTLSEGIRQWWKLKPGPPPPKP

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AERHKDDSRGLVLPGYKYLGPFGNLDKGEPVNEADAAALEHDKAYDRQLDSGDNP
 YLKYNHADAQERLKEDETSFGGNLGRAVFQAKKRVLEPLGLVEEPVKTA PGKKRP
 VEHSPVEPDSSSGTGKAGQQPARKRLNFGQTDADSVDPQPPLGQPPAAPSGGLGT
 NTMATGSGAPMADNNEGADGVGNSSGNWHCDSTWMGDRVITTTSTRTWALPTYNN
 HLYKQISSQSGASNDNHYFGYSTPWGYFDFNRFHCHFSPRDWQRLINNNWGFRPK
 RLNFKLFNIQVKEVTQNDGTTTIANNLTSTVQVFTDSEYQLPYVLGSAHQGCLPPFP
 ADVFMVPQYGYLTLNNGSQAVGRSSFYCLEYFPSQMLRTGNNFTFSYTFEDVPFHS
 SYAHSQSLDRLMNPLIDQYLYLSRTNTPSGTTTQSRLQFSQAGASDIRDQSRNWL
 PGPCYRQQRVSKTSADNNNSEYSWTGATKYHLNGRDSLVPNGPAMASHKDDEEK
 FFPQSGVLIFGKQGSEKTNVDIEKVMITDEEEIRTTNPVATEQYGSVSTNLQRGNRQ
 AATADVNTQGVLPGMVWQDRDVYLQGPIWAKIPHTDGHFHPSPMLGGFGLKHPPP
 QILIKNTPVPANPSTTFSAAKFASFITQYSTGQVSVEIEWELQKENS KRWNPEIQYTS
 NYNKS VNVDFTVD TNGVYSEPRPIGTRYLTRNL

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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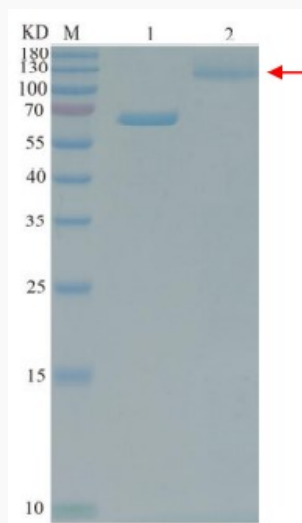
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Gene ID 4192017

Protein Refseq YP_680426

UniProt ID P03135

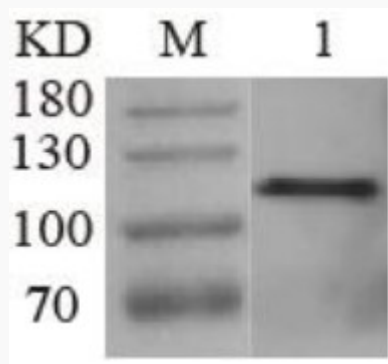
SDS-PAGE



Lane 1: 0.5 mg/mL BSA

Lane 2: Purified protein

WB



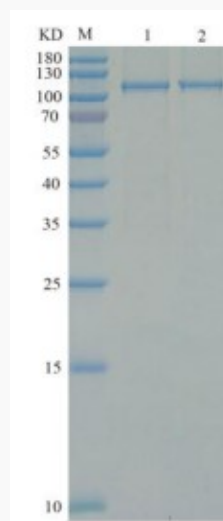
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Lane 1: purified protein

SDS-PAGE



M: Protein ladder

1: Sample before digestion

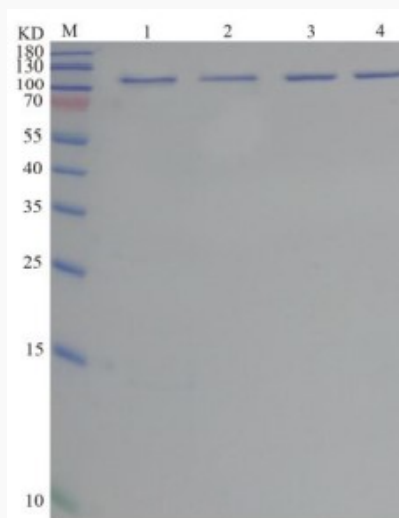
2: Sample after digestion

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