

Recombinant AAV-2 VP2 Protein, Strep/SUMO/His-tagged

Cat. No. VP2-04A **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant AAV-2 VP2 Protein with 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	81.49 kDa
AA Sequence	MNWSHPQFEKSSGSSGGHHHHHHGGSGGSGSDSEVNQEAKPEVKPEVKPETHIN LKVSDGSSEIFFKIKKTTPLRRLMEAFKRQGKEMDSLRFLYDGIRIQADQAPEDLDM EDNDIIEAHREQIGGLNSSSVDMAPGKKRPVEHSPVEPDSSSGTGKAGQQPARKRL NFGQTGDADSVDPDPQLGQPPAAPSGLGTNTMATGSGAPMADNNEGADGVGNSS

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GNWHCDSTWMGDRVITTSTRTWALPTYNNHLYKQISSQSGASNDNHYFGYSTPW
 GYFDFNRFHCHFSPRDWQRLINNNWGFPRKRLNFKLFNIQVKEVTQNDGTTTIANN
 LTSTVQVFTDSEYQLPYVLGSAHQGCLPPFPADVFMVPQYGYLTLNNGSQAVGRSS
 FYCLEYFPSQMLRTGNNFTFSYTFEDVPFHSSYAHSQSLDRLMNPLIDQYLYLSRT
 NTPSGTTTQSRLQFSQAGASDIRDQSRNWLPGPCYRQQRVSKTSADNNNSEYSWT
 GATKYHLNGRDSLVNPGPAMASHKDDEEKFFPQSGVLIFGKQGSEKTNVDIEKVMIT
 DEEEIRTTNPVATEQYGSVSTNLQRGNRQAATADVNTQGVLPGMVWQDRDVYLQG
 PIWAKIPHTDGHFHPSPLMGGFGLKHPPPQILIKNTPVPANPSTTFSAAKFASFITQYS
 TGQVSVEIEWELQKENSkrwnPEIQYTSNynKSVNVDFTVDTNGVYSEPRPIGTRY
 LTRNL

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 AAV2gp06 assembly activating protein AAP;major coat protein VP2 [Adeno-associated virus - 2]

Official Symbol AAV2gp06

Synonyms AAV2gp06; assembly activating protein AAP;major coat protein VP2; assembly activating protein AAP;major coat protein VP2

Gene ID 4192015

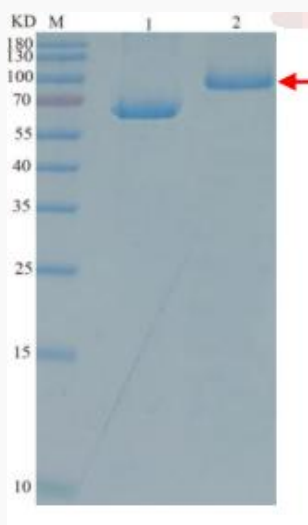
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Protein Refseq YP_680427

UniProt ID P03135



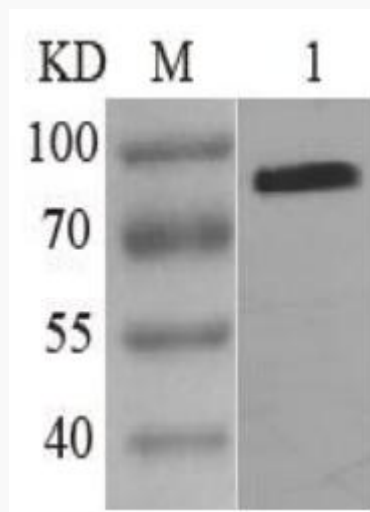
Lane 1: 0.5 mg/mL BSA

Lane 2: purified protein

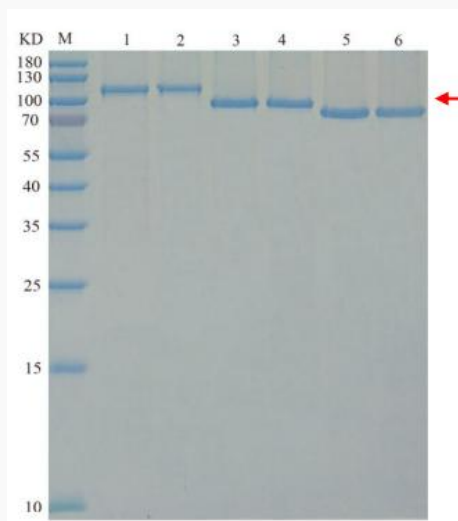
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Lane1: purified protein

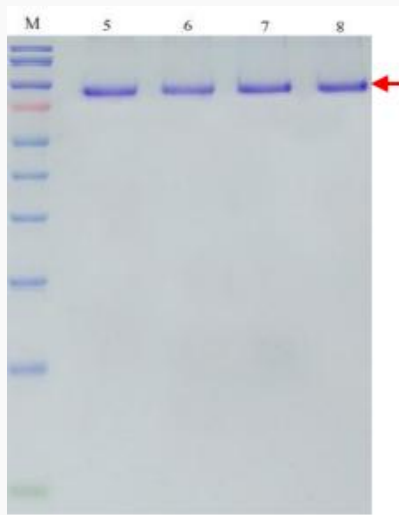


M: Protein ladder

3: Sample before digestion

4: Sample after digestion

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



M: Protein ladder

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

5: Sample before digestion

6: Sample after digestion

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

7: Sample before digestion

8: Sample after digestion