Product datasheet

AAV2 VP1 + VP2 + VP3, recombinant proteins, set

Short overview

Cat. No.	72001
Quantity	10 µg each protein
Concentration	100 µg/ml (VP1: 1.19 µM, VP2: 1.45 µM, VP3: 1.61 µM)

Product description

Formulation	Liquid, 6 M urea in PBS
Source	Escherichia coli
Molecular Weight	VP1: 84.1 kDa, VP2: 68.9 kDa, VP3: 62.2 kDa (calculated Mw from aa sequence)
Purity	> 90% (determined by SDS PAGE)
Product description	N-terminal His-tagged (MGSSHHHHHHSSGLVPRGSH) recombinant AAV2 capsid proteins VP1 + VP2 + VP3
Purification	Ni-NTA chromatography
Storage	-80°C
Intended use	Research use only
Application	Capillary electrophoresis (CE), Dot blot, SDS PAGE, WB

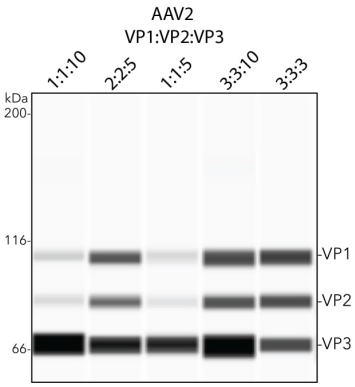
Applications

Capillary electrophoresis (CE)	Assay dependent
Dot Blot	100 ng, depending on primary antibody and detection method
SDS PAGE	1 µg
Western Blot (WB)	5-20 ng, depending on primary antibody and detection method

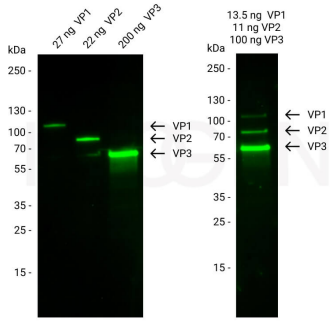
Background

The AAV capsid consists of three capsid proteins, i.e. VP1, VP2 and VP3, which differ in their N-terminus and encapsulate the genomic ssDNA. In native virus particles, the three proteins form subunits with a ratio of 1:1:10 (VP1:VP2:VP3), in a total number of 60 subunits per capsid. This set of recombinant AAV2 VP1, VP2 and VP3 can be used to create a mixture with the precise molar ratio of 1:1:10 to compare the protein composition of the viral capsid in your sample by protein detection methods, e.g. western blot. All three recombinant AAV2 capsid proteins are available as set (Cat. No. 72001) or as individual proteins (Cat. No. 640823, 640824, 640825).Note: please find an example how to prepare western blot samples in the pipetting scheme below. Aliquots of the remaining samples can be stored at -80°C for reuse. Set content:Cat. No. 640823 AAV2 VP1, recombinant protein Cat. No. 640824 AAV2 VP2, recombinant protein Cat. No. 640825 AAV2 VP3, recombinant protein

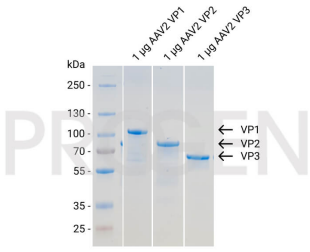
Product images



Analysis of AAV2 VP1 + VP2 + VP3, recombinant proteins (Cat. No. 72001) with various stoichiometric ratios by Simple WesternTM, a CE-immunoassay platform from ProteinSimple, a Bio-Techne brand. Capsid proteins were detected using an anti-AAV VP1/VP2/VP3 mouse monoclonal antibody (Cat. No. 690058).



Western blot analysis of recombinant AAV2 capsid proteins (Cat. No. 640823, 640824, 640825) with fluorescent B1 antibody (Cat. No. 61058-488). Western blot analysis was performed on the precise molar ratio of 1:1:10 (VP1:VP2:VP3) either in separate lanes or combined in one lane. The PVDF membranes were blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-AAV VP1/VP2/VP3, B1 AFDyeTM 488 (Cat. No. 61058-488) was diluted in blocking buffer (antibody concentration 130 ng/ml) and incubated for 1 h at RT. The bands were visualized by fluorescent detection.



SDS PAGE analysis to evaluate the purity of the AAV2 VP1, VP2 and VP3 (Cat. No. 72001). To perform SDS PAGE analysis, 1 µg of each AAV2 VP protein was diluted in 10 µl PBS and sample buffer and denatured at 95°C for 10 min. The samples were loaded onto a 4-20% gradient gel (40 min at 200 V). Afterwards, the gel was stained for 1 h at RT with Coomassie solution and destained with water. The purity of AAV2 VP1, VP2 and VP3 is > 90%.