Product datasheet

AAV9 VP3, recombinant protein

Short overview

Cat. No.	640844
Quantity	10 µg
Concentration	100 µg/ml (1.61 µM)

Product description

Formulation	Liquid, 6 M urea in PBS
Source	Escherichia coli
Molecular Weight	62.0 kDa (calculated Mw from aa sequence)
Purity	> 95% (determined by SDS PAGE)
Product description	N-terminal His-tagged (MGSSHHHHHHSSGLVPRGSH) recombinant AAV9 capsid protein VP3
Purification	Ni-NTA chromatography
Storage	-80°C
Intended use	Research use only
Application	Dot blot, SDS PAGE, WB

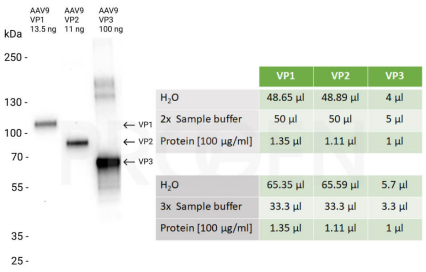
Applications

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

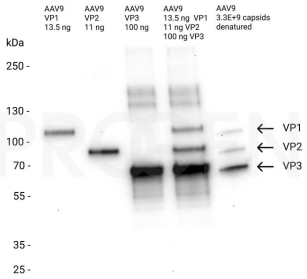
The AAV capsid consists of three capsid proteins, i.e. VP1, VP2 and VP3, which differ in their N-terminus and encapsulate the genomic ssDNA. In native virus particles, the three proteins form subunits with a ratio of 1:1:10 (VP1:VP2:VP3), in a total number of 60 subunits per capsid. The recombinant AAV9 VP3 protein in combination with recombinant AAV9 VP1 (Cat. No. 640842) and recombinant AAV9 VP2 (Cat. No. 640843) 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 AAV9 capsid proteins are available as set (Cat. No. 72009) or as individual proteins (Cat. No. 640842, 640843, 640844). 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.

Product images

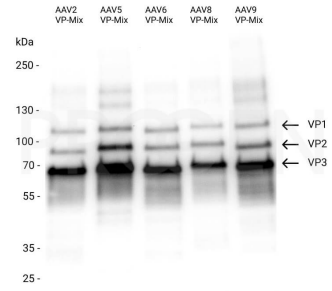


	VP1	VP2	VP3
H_2O	48.65 µl	48.89 µl	4 µl
2x Sample buffer	50 µl	50 µl	5 µl
Protein [100 µg/ml]	1.35 µl	1.11 µl	1 µl
H_2O	65.35 µl	65.59 µl	5.7 µl
3x Sample buffer	33.3 µl	33.3 µl	3.3 µl
Protein [100 µg/ml]	1.35 µl	1.11 µl	1 µl

Pipetting scheme for western blot analysis using the AAV9 capsid proteins (Cat. No. 640842, 640843, 640844) in separate lanes. To analyze the molar ratio of 1:1:10, it is recommended to load VP1, VP2 and VP3 as described in the pipetting scheme above. Therefore, the indicated volumes of the proteins (concentration 100 µg/ml) should be diluted with the appropriate amount of sample buffer and distilled water. 10 µl of each solution can be separately loaded onto the SDS PAGE and analyzed by Western blot using the B1 antibody (Cat. No. 690058, Cat. No. 61058-488, Cat. No. 61058-647).



Western blot analysis of recombinant AAV9 capsid proteins (Cat. No. 640842, 640843, 640844) and denatured AAV9 capsids with B1 antibody (Cat. No. 690058). 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 and on 3.3E+09 denatured AAV9 capsids. The PVDF membrane was blocked with 5% milk in PBST for 1 h at RT. The primary antibody anti-AAV VP1/VP2/VP3, B1 (Cat. No. 690058) was diluted in blocking buffer (antibody concentration 500 ng/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG HRP was also diluted in blocking buffer (antibody concentration 200 ng/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce ECL Western Blotting Substrate.



Western blot analysis of recombinant AAV2 VP proteins (Cat. No. 72001), recombinant AAV5 VP proteins (Cat. No. 72005), recombinant AAV6 VP proteins (Cat. No. 72006), recombinant AAV8 VP proteins (Cat. No. 72008) and recombiant AAV9 VP proteins (Cat. No. 72009) with B1 antibody (Cat. No. 690058). Western blot analysis was performed on the precise molar ratio of 1:1:10 (13.5 ng VP1:11 ng VP2:100 ng VP3) combined in one lane. The PVDF membrane was blocked with 5% milk in PBST for 1 h at RT.The primary antibody anti-AAV VP1/VP2/VP3, B1 (Cat. No. 690058) was diluted in blocking buffer (antibody concentration 500 ng/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG HRP was also diluted in blocking buffer (antibody concentration 200 ng/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce ECL Western Blotting Substrate.