

## Product datasheet

### anti-AAV VP1 mouse monoclonal, A1, lyophilized, purified

#### Short overview

<b>Cat. No.</b>	61056
<b>Quantity</b>	50 µg
<b>Concentration</b>	50 µg/ml after reconstitution with 1 ml sterile PBS

#### Product description

<b>Host</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Isotype</b>	IgG2a
<b>Clone</b>	A1
<b>Immunogen</b>	AAV2 capsids
<b>Formulation</b>	Lyophilized; reconstitute in 1 ml sterile PBS
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity chromatography
<b>Storage before reconstitution</b>	2-8°C until indicated expiry date
<b>Storage after reconstitution</b>	Up to 3 months at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
<b>Intended use</b>	Research use only
<b>Application</b>	ELISA, ICC/IF, IP, WB
<b>Reactivity</b>	AAV1, AAV2, AAV3, AAV5, AAV6, AAV7, AAV8, AAV9, AAVDJ

#### Applications

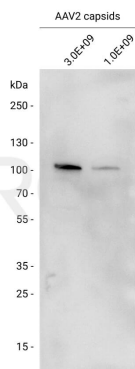
<b>ELISA</b>	Assay dependent
<b>Immunocytochemistry (ICC)</b>	Assay dependent
<b>Immunoprecipitation (IP)</b>	Assay dependent
<b>Western Blot (WB)</b>	1:500 (0.1 µg/ml)

#### Background

A1 reacts with VP1 of adeno-associated virus 1-9 and DJ (AAV1-9, DJ). In immunoprecipitation, an occasional reaction with a non-AAV-derived protein is found. Epitope mapping experiments (Wobus et al. 2000) identified aa123 to aa131 of VP1 capsid protein as the specific binding region.

Wobus, C. E. et al. Monoclonal antibodies against the adeno-associated virus type 2 (AAV-2) capsid: epitope mapping and identification of capsid domains involved in AAV-2-cell interaction and neutralization of AAV-2 infection. J. Virol. 74, 928193 (2000).

Product images

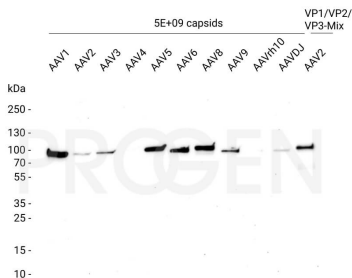


Western blot analysis of AAV2 capsids with anti-AAV VP1 antibody. Western blot analysis was performed on either 3.0E+09 or 1.0E+09 AAV2 capsids. The PVDF membrane was blocked with 5% dry milk in PBST for 1 h at RT. The primary antibody anti-AAV VP1, mouse monoclonal, A1 was diluted in blocking buffer (antibody concentration 0.1 µg/ml) and incubated for 1 h at RT. The secondary antibody goat anti-mouse IgG polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using Pierce™ ECL Western Blotting Substrate.

A1 epitopes in AAV serotypes

AAV1	AKKR <b>V</b> LEPLGLVEEGAKTAPGKKRPVEQSPQ
AAV2	AKKR <b>V</b> LEPLGLVEEPVKTAPGKKRPVEHSPV
AAV3B	AKKR <b>I</b> LEPLGLVEEA <b>A</b> KTAPGKKRPVDQSPQ
AAV4	AKKR <b>V</b> LEPLGLVEQAGETAPGKKRPLIESPQ
AAV5	AKKR <b>V</b> LEPFGLVEEGAKTAPT <b>G</b> KRID <b>D</b> HF <b>F</b> PK
AAV6	AKKR <b>V</b> LEPFGLVEEGAKTAPGKKRPVEQSPQ
AAV7	AKKR <b>V</b> LEPLGLVEEGAKTAPAKKR <b>P</b> VE <b>P</b> SPQ
AAV8	AKKR <b>V</b> LEPLGLVEEGAKTAPGKKRPVE <b>P</b> SPQ
AAV9	AKKR <b>L</b> LEPLGLVEEA <b>A</b> KTAPGKKRPVEQSPQ
AAVrh10	AKKR <b>V</b> LEPLGLVEEA <b>A</b> KTAPGKKRPVE <b>P</b> SPQ
AAVhu.37	AKKR <b>V</b> LEPLGLVEEA <b>A</b> KTAPGKKRPVE <b>P</b> SPQ
AAVrh74	AKKR <b>V</b> LEPLGLVE <b>S</b> PVKTAPGKKRPVE <b>P</b> SPQ

Alignment of A1 epitopes in different AAV serotypes.



Western blot analysis of denatured AAV1-AAV9, AAVrh10, AAVDJ capsids (5E+09 capsids, denatured at 95°C for 10 min in sample buffer) and recombinant AAV2 VP1/VP2/VP3-Mix (50 ng, Cat. No. 72001).The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-AAV VP1, mouse monoclonal, A1 was diluted in blocking buffer (antibody concentration 100 ng/ml) and incubated for 1 h at RT. The secondary antibody goat 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.

## References

Publication	Species	Application
<a href="#">Mietzsch, M. et al. OneBac: Platform for Scalable and High-Titer Production of Adeno-Associated Virus Serotype 1–12 Vectors for Gene Therapy. Hum. Gene Ther. 25, 212–222 (2014).</a>	AAV1,AAV2,AAV3,AAV4,AAV5,AAV6,AAV7,AAV8,AAV9,AAVrh10,AAV11,AAV12	WB
<a href="#">Grimm, D., Kay, M. A. &amp; Kleinschmidt, J. A. Helper virus-free, optically controllable, and two-plasmid-based production of adeno-associated virus vectors of serotypes 1 to 6. Mol. Ther. 7, 839–850 (2003).</a>	AAV2	WB
<a href="#">Wobus, C. E. et al. Monoclonal antibodies against the adeno-associated virus type 2 (AAV-2) capsid: epitope mapping and identification of capsid domains involved in AAV-2-cell interaction and neutralization of AAV-2 infection. J. Virol. 74, 9281–93 (2000).</a>	AAV2	epitope mapping
<a href="#">Wistuba, A. et al. Subcellular Compartmentalization of Adeno-Associated Virus Type 2 Assembly. J. Virol. 71, 1341–1352 (1997).</a>	AAV2	WB,ICC-IF