

## Product datasheet

anti-AAV9 (intact particle) mouse monoclonal, ADK9, liquid, purified

### Short overview

<b>Cat. No.</b>	690162
<b>Quantity</b>	1 ml (50 µg/ml)
<b>Concentration</b>	50 µg/ml

### Product description

<b>Host</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Isotype</b>	IgA kappa
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity chromatography
<b>Storage</b>	Up to 1 month: 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>	Dot blot, ELISA, ICC/IF, Neutralization assay
<b>Reactivity</b>	AAV9
<b>No reactivity</b>	AAV1, AAV11, AAV12, AAV2, AAV3, AAV4, AAV5, AAV6, AAV7, AAV8, AAVDJ, AAVrh10, AAVrh74

### Applications

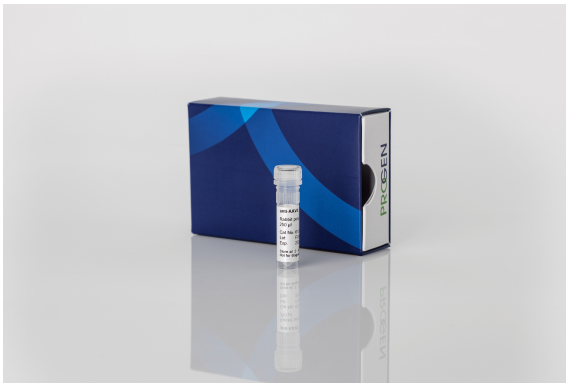
<b>Dot Blot</b>	1:100-1:1,000 (0.05-0.5 µg/ml; non-denaturing conditions)
<b>ELISA</b>	Assay dependent
<b>Immunocytochemistry (ICC)</b>	Assay dependent
<b>Neutralization Assay</b>	EC50 ~2 ng/ml (AAV9) - assay dependent

### Background

For characterization of different stages of infection and very useful for the analysis of the AAV assembly process. ADK9 specifically reacts with intact adeno-associated virus particles, empty and full capsids. Recognizes a conformational epitope of assembled capsids. The antibody cannot be used for immunoblotting. The antibody is also useful for neutralizing experiments.

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### Product images



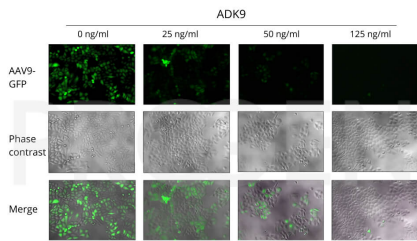
anti-AAV9 (intact particle) mouse monoclonal, ADK9, liquid, purified

Serotype	Clone	Residues	
AAV9	ADK9	453-GSGQN-457	Neutralization epitope, not sure because no other epitope was i

Adachi, K., Enoki, T., Kawano, Y., Veraz, M. & Nakai, H. Drawing a high-resolution functional map of adeno-sequencing. *Nat. Commun.* 5, (2014).

For AAV9 the neutralization epitope has been identified and might give an additional indication about the binding residues of the neutralizing antibody ADK9 used for the corresponding AAV9 Titration ELISAs. ADK9 recognizes and neutralizes assembled AAV9 capsids.

Adachi, K., Enoki, T., Kawano, Y., Veraz, M. & Nakai, H. Drawing a high-resolution functional map of adeno-associated virus capsid by massively parallel sequencing. *Nat. Commun.* 5, (2014).



Neutralization of AAV9-GFP vectors with the ADK9 antibody (Cat. No. 690162). AAV infection was shown in HeLa cells and photos (GFP, CPE, merge) were taken ~48 h post infection. Neutralization was enhanced with increasing ADK9 concentration.

## References

Publication	Species	Application
<a href="#">Adachi, K., Enoki, T., Kawano, Y., Veraz, M. &amp; Nakai, H. Drawing a high-resolution functional map of adeno-associated virus capsid by massively parallel sequencing. Nat. Commun. 5. (2014).</a>	AAV9	Neutralization epitope mapping
<a href="#">Varadi, K. et al. Novel random peptide libraries displayed on AAV serotype 9 for selection of endothelial cell-directed gene transfer vectors. Gene Ther. 19, 800-809 (2012).</a>	AAV9	neutralization
<a href="#">Tseng, Y.-S. et al. Generation and characterization of anti-Adeno-associated virus serotype 8 (AAV8) and anti-AAV9 monoclonal antibodies. J. Virol. Methods 236, 105-110 (2016).</a>	AAV9	dot blot, neutralization
<a href="#">Emmanuel, S. N. et al. Structurally Mapping Antigenic Epitopes of Adeno-associated Virus 9: Development of Antibody Escape Variants. J. Virol. 96, (2022).</a>	AAV9	neutralization, epitope mapping, dot blot
<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>	AAV9	dot blot