

Product datasheet

anti-AAV8 (intact particle) mouse monoclonal, ADK8, lyophilized, purified, sample

Short overview

Cat. No.	610160S
Quantity	10 µg
Concentration	50 µg/ml after reconstitution with 200 µl PBS

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG2a kappa
Clone	ADK8
Immunogen	AAV8 capsids
Formulation	Lyophilized; reconstitute in 200 µl sterile PBS
Binding affinity	KD value (AAV8) = <1.0E-12 M KD value (AAVrh10) = <1.0E-12 M KD value (AAVrh74) = <1.0E-12 M
Synonym	Adeno-associated virus 8, AAV-8
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage before reconstitution	2-8°C until indicated expiry date
Storage after reconstitution	Up to 3 months at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	Dot blot, ELISA, ICC/IF, IP, Neutralization assay
Reactivity	AAV3, AAV7, AAV8, AAVrh10, AAVrh74, Anc80
No reactivity	AAV1, AAV11, AAV12, AAV2, AAV4, AAV5, AAV6, AAV9, AAVDJ

Applications

Dot Blot	1:100-1:500 (0.1-0.5 µg/ml; non-denaturing conditions)
ELISA	Assay dependent
Immunocytochemistry (ICC)	Assay dependent
Immunoprecipitation (IP)	Assay dependent
Neutralization Assay	EC50 ~14 ng/ml (AAV3), ~4 ng/ml (AAV8) - assay dependent

Background

For characterization of different stages of infection and very useful for the analysis of the AAV assembly process. ADK8 specifically reacts with PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

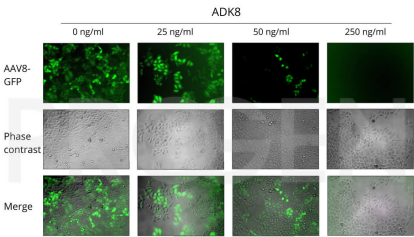
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AAV1, AAV3, AAV7, AAV8, AAVrh10, AAVrh74 and Anc80, empty and full capsids. Recognizes a conformational epitope of assembled capsids. Predicted binding site: residues 586-LQQQNT-591 (Gurda et al. 2012). The antibody cannot be used for immunoblotting using denaturing conditions. The antibody is also useful for neutralizing experiments. Gurda, B. L. et al. Mapping a Neutralizing Epitope onto the Capsid of Adeno-Associated Virus Serotype 8. J. Virol. 86, 7739-7751 (2012).

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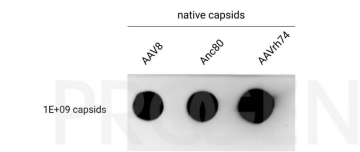
Product images



Neutralization of AAV8-GFP vectors with the ADK8 antibody (Cat. No. 610160). AAV infection was shown in HeLa cells and photos (GFP, CPE, merge) were taken ~48 h post infection. Neutralization was enhanced with increasing ADK8 concentration.

Antibody clone	Serotype	Binding affinity [KD value]	Neutralization activity [EC50]
ADK8	AAV3	na	~14 ng/ml
	AAV8	<1.0E-12 M	~4 ng/ml
	AAVrh10	<1.0E-12 M	na
	AAVrh74	<1.0E-12 M	na
ADK8-h1	AAV3	na	~26 ng/ml
	AAV8	<1.0E-12 M	~2 ng/ml
	AAVrh10	<1.0E-12 M	na
	AAVrh74	<1.0E-12 M	na

Comparison of binding affinity and neutralization activity of anti-AAV8 antibodies (mouse monoclonal ADK8 and human chimeric ADK8-h1).



Dot blot analysis of native AAV8, Anc80 and AAVrh74 capsids (1E+09 capsids). The nitrocellulose membrane was blocked with 5% milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-AAV8 (intact particle) mouse monoclonal, ADK8 (Cat. No. 610160) was diluted in blocking buffer (antibody concentration 500 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 Plus Western Blotting Substrate.

References

Publication	Species	Application
Ohba K. et al. Adeno-associated virus vector system controlling capsid expression improves viral quantity and quality., iScience, 26, 106487, (2023).	AAV7, AAV8, AAVrh10	IP
Haar, J., Blazevic, D., Strobel, B., Kreuz, S. & Michelfelder, S. MSD-based assays facilitate a rapid and quantitative serostatus profiling for the presence of anti-AAV antibodies. Mol. Ther. - Methods Clin. Dev. 25, 360â€“369 (2022).	AAV8	IA
Emmanuel, S. N., Mietzsch, M., Tseng, Y. S., Smith, J. K. & Agbandje-Mckenna, M. Parvovirus Capsid-Antibody Complex Structures Reveal Conservation of Antigenic Epitopes across the Family. Viral Immunol. 34, 3â€“17 (2021).	AAV8	binding region
Baatartsogt, N. et al. A sensitive and reproducible cell-based assay via secNanoLuc to detect neutralizing antibody against adeno-associated virus vector capsid. Mol. Ther. - Methods Clin. Dev. 22, 162â€“171 (2021).	AAV8	Neutralization
Chung, S.H. et al. Host immune responses after suprachoroidal delivery of AAV8 in nonhuman primate eyes. Hum Gene Ther. 32, 682-693(2021).	AAV8	binding antibody assay