

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

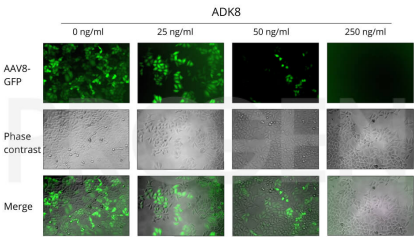
For characterization of different stages of infection and very useful for the analysis of the AAV assembly process. ADK8 specifically reacts with PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

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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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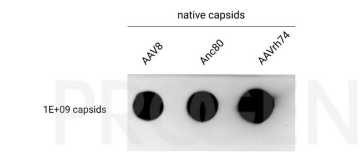
Product images



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
François, A. et al. Accurate Titration of Infectious AAV Particles Requires Measurement of Biologically Active Vector Genomes and Suitable Controls. Mol. Ther. - Methods Clin. Dev. 10, 223â€“236 (2018).	AAV8	ICC-IF
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
Gurda, B. L. et al. Mapping a Neutralizing Epitope onto the Capsid of Adeno-Associated Virus Serotype 8. J. Virol. 86, 7739-7751 (2012).	AAV8	ELISA,dot blot,ICC-IF,neutralization,epitope mapping