

Product datasheet

anti-AAV1 (intact particle) mouse monoclonal, ADK1a, lyophilized, purified, sample

Short overview

Cat. No.	610150S
Quantity	10 µg
Concentration	50 µg/ml after reconstitution with 200 µl sterile PBS

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG2a lambda
Clone	ADK1a
Immunogen	AAV1 capsids
Formulation	Lyophilized; reconstitute in 200 µl sterile PBS
Binding affinity	KD value (AAV1) = <1.0E-12 M KD value (AAV6) = <1.0E-12 M
Synonym	Adeno-associated virus 1; AAV-1
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	Affinity chromatography, Dot blot, ELISA, ICC/IF, IP, Neutralization assay
Reactivity	AAV1, AAV12, AAV6
No reactivity	AAV11, AAV2, AAV3, AAV4, AAV5, AAV7, AAV8, AAV9, AAVDJ, AAVrh10, AAVrh74

Applications

Affinity Chromatography	Assay dependent
Dot Blot	1:500 (0.1 µg/ml; non-denaturing conditions)
ELISA	Assay dependent
Immunocytochemistry (ICC)	1:20
Immunoprecipitation (IP)	1:5
Neutralization Assay	EC50 ~2 ng/ml (AAV1) and ~2 ng/ml (AAV6) - assay dependent

Background

For characterization of different stages of infection and very useful for the analysis of the AAV assembly process. ADK1a specifically reacts with PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

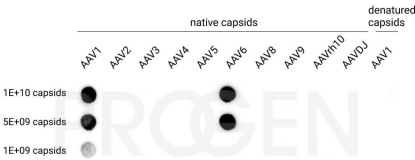
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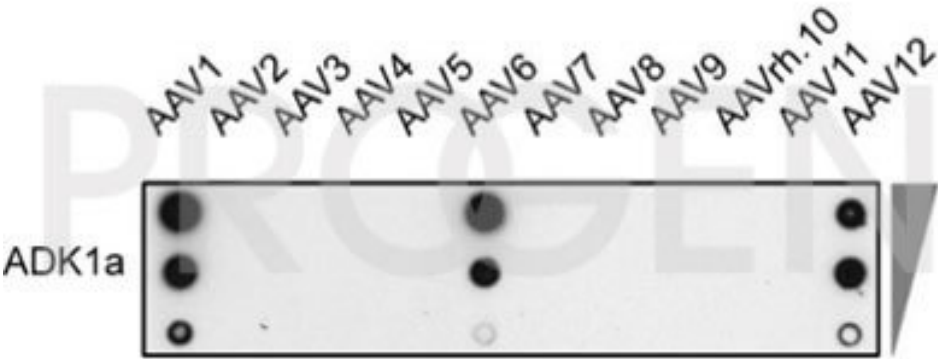
intact adeno-associated virus particles, empty and full capsids. Recognizes a conformational epitope of assembled capsids, not present in denatured capsid proteins and native but unassembled capsid proteins. The antibody cannot be used for immunoblotting.

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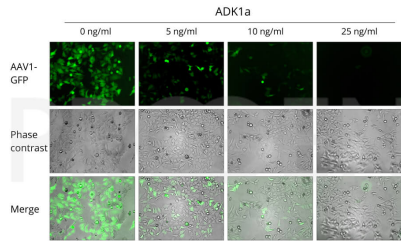
Product images



Dot blot analysis of native AAV1-AAV9, AAVrh10, AAVDJ capsids (1E+09-1E+10 capsids) and denatured AAV1 capsids (1E+09-1E+10 capsids, denatured at 95°C for 10 min in sample buffer).The nitrocellulose membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-AAV1 (intact particle) mouse monoclonal, ADK1a (Cat. No. 610150) 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 Plus Western Blotting Substrate.



Dot blot with different AAV serotypes and mouse monoclonal anti-AAV1 antibody, clone ADK1a (Courtesy of Regina Heilbronn, Charité Universitätsmedizin Berlin, Mietzsch et al. Hum Gene Ther. 2014 Mar 1; 25(3):212-222)



Neutralization of AAV1-GFP vectors with the ADK1a antibody (Cat. No. 610150). AAV infection was shown in HeLa cells and photos (GFP, CPE, merge) were taken ~48 h post infection. Neutralization was enhanced with increasing ADK1a concentration.

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).	AAV1	IP
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).	AAV1	binding region
Tse, L. V. et al. Structure-guided evolution of antigenically distinct adeno-associated virus variants for immune evasion. Proc. Natl. Acad. Sci. U. S. A. 114, E4812â€E4821 (2017).	AAV1	cryoEM
Tseng, Y.-S. et al. Adeno-Associated Virus Serotype 1 (AAV1)-and AAV5-Antibody Complex Structures Reveal Evolutionary Commonalities in Parvovirus Antigenic Reactivity. J. Virol. 89, 1794â€1808 (2015).	AAV1	epitope mapping, neutralization
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).	AAV1	Neutralization epitope mapping