Product datasheet

anti-AAV2 (intact particle) mouse monoclonal, A20, lyophilized, purified

Short overview

Cat. No.	61055
Quantity	50 µg
Concentration	50 µg/ml after reconstitution with 1 ml dist. water

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG3
Clone	A20
Immunogen	AAV2 capsids
Formulation	Lyophilized; reconstitute in 1 ml dist. water (final solution contains 0.09% sodium azide, 0.5% BSA in PBS buffer, pH 7.4)
Synomym	Adeno-associated virus 2; AAV-2
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage before reconstitution	2-8°C until indicated expiry date
Storage after reconstitution	2-8°C
Intended use	Research use only
Application	Affinity chromatography, Dot blot, ELISA, ICC/IF, IP, Neutralization assay
Reactivity	AAV2, AAV2 7m8, AAV3

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	Assay dependent

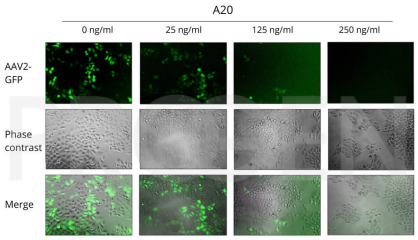
Background

For characterization of different stages of infection and very useful for the analysis of the AAV2 assembly process. A20 specifically reacts with AAV2 and AAV3, 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

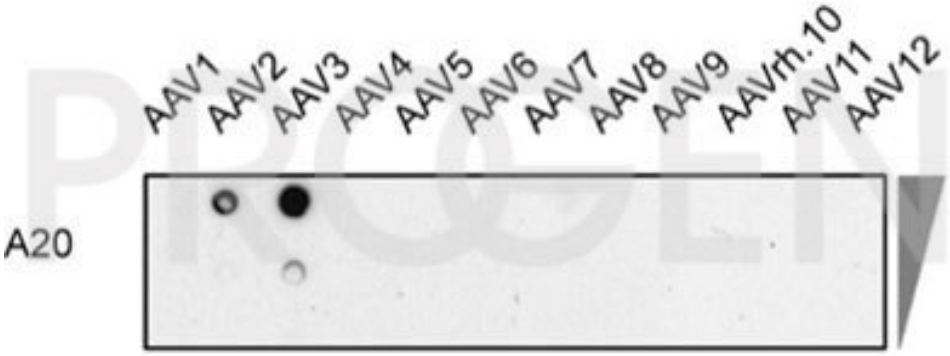
immunoblotting.Epitope mapping experiments (Wobus et al. 2000) identified four immunoreactive (discontinous) regions. The major reaction was attributed to sequence aa 369 to aa378 of AAV2 capsids. The antibody is also useful for neutralizing experiments.

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). Moskalenko, M. et al. Epitope Mapping of Human Anti-Adeno-Associated Virus Type 2 Neutralizing Antibodies: Implications for Gene Therapy and Virus Structure. Jounal Virol. 74, 1761-1766 (2000).

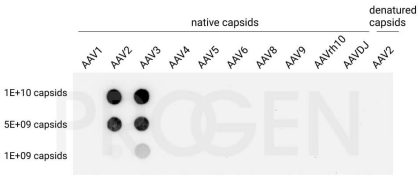
Product images



Neutralization of AAV2-GFP vectors with the A20 antibody (Cat. No. 61055). AAV infection was shown in HeLa cells and photos (GFP, CPE, merge) were taken ~48 h post infection. Neutralization was enhanced with increasing A20 concentration.



Dot blot with different AAV serotypes and mouse monoclonal anti-AAV2 antibody, clone A20 (Courtesy of Regina Heilbronn, Charité Universitätsmedizin Berlin, Mietzsch et al. Hum Gene Ther. 2014 Mar 1; 25(3):212-222)



Dot blot analysis of native AAV1-AAV9, AAVrh10, AAVDJ capsids (1E+09-1E+10 capsids) and denatured AAV2 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-AAV2 (intact particle) mouse monoclonal, A20 (Cat. No. 61055) 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.

References

Publication	Species	Application
Wistuba, A., Weger, S., Kern, A., Rgen, J. & Kleinschmidt, A. Intermediates of Adeno-Associated Virus Type 2 Assembly: Identification of Soluble Complexes Containing Rep and Cap Proteins. J. Virol. 69, 5311â€“5319 (1995).	AAV2	IP
Sonntag, F. et al. The Assembly-Activating Protein Promotes Capsid Assembly of Different Adeno-Associated Virus Serotypes. J. Virol. 85, 12686â€“12697 (2011).	AAV2	ELISA,ICC-IF
Wistuba, A. et al. Subcellular Compartmentalization of Adeno-Associated Virus Type 2 Assembly. J. Virol. 71, 1341â€“1352 (1997).	AAV2	ICC-IF,IP
Hamann, M. V. et al. Improved targeting of human CD4+ T cells by nanobody-modified AAV2 gene therapy vectors. PLoS One 16, (2021).	AAV2	dot blot
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, 9281â€“93 (20	AAV2,AAV3	neutralization,ELISA