Product datasheet

anti-AAV VP1/VP2/VP3 mouse monoclonal, B1, supernatant

Short overview

Cat. No.	65158
Quantity	5 ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	B1
Immunogen	AAV2 capsids
Formulation	Contains 0.09% sodium azide
Conjugate	Unconjugated
Purification	Hybridoma cell culture supernatant
Storage	Short term 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, ICC/IF, IP, WB
Reactivity	AAV1, AAV2, AAV3, AAV5, AAV6, AAV7, AAV8, AAV9, AAVDJ, AAVrh10

Applications

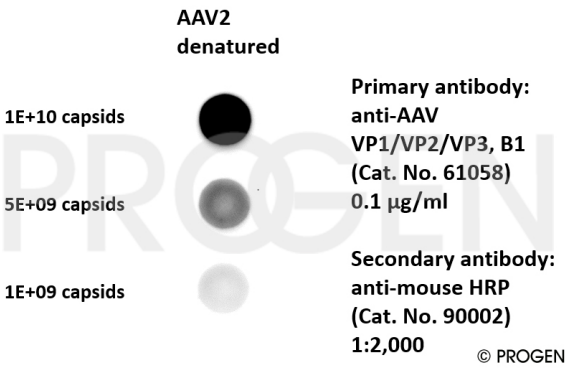
Affinity Chromatography	Assay dependent
Dot Blot	Assay dependent (denaturing conditions)
Immunocytochemistry (ICC)	Assay dependent
Immunoprecipitation (IP)	Assay dependent (precipitation of mainly free VP proteins)
Western Blot (WB)	1:25-1:200

Background

The B1 antibody reacts with free VP1, VP2 and VP3 of adeno-associated virus (AAV) and at a reduced degree with assembled viral particles. VP1 and VP2 are highly enriched in the nucleus, while non-assembled VP3 is evenly distributed in the nucleus and the cytoplasm. Epitope mapping experiments (Wobus et al., 2000) identified aa726 to aa733 (C-terminus; common to all 3 VP proteins) as the specific binding region. The antibody is also useful for characterization of different stages of infection.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).

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Product images

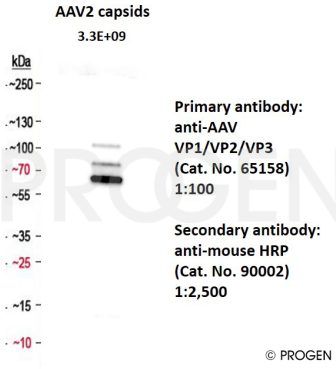


Dot blot with denatured AAV2 capsids (1E+09-1E+10 capsids) and anti-AAV VP1/VP2/VP3 antibody, B1 (0.1 ug/ml)

B1 epitopes in AAV serotypes

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AAV1      KSANVDFTVDNNGLYTEPRPIGTRYLTRPL
AAV2      KSVNVDFTVDTNGVYSEPRPIGTRYLTRNL
AAV-DJ    KSTSVDFAVNTEGVYSEPRPIGTRYLTRNL
AAV3B     KSVNVDFTVDTNGVYSEPRPIGTRYLTRNL
AAV4      QQNSLLWAPDAAGKYTEPRAIGTRYLTHHL
AAV5      DPQFVDFAPDSTGEYRTTRPIGTRYLTRPL
AAV6      KSANVDFTVDNNGLYTEPRPIGTRYLTRPL
AAV7      KQTGVDFAVDSQGVYSEPRPIGTRYLTRNL
AAV8      KSTSVDFAVNTEGVYSEPRPIGTRYLTRNL
AAV9      KSNNVEFAVNTEGVYSEPRPIGTRYLTRNL
AAVrh10   KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL
AAVhu.37  KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL
AAVrh74   KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL
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Alignment of B1 epitopes in different AAV serotypes.



WB with anti-AAV VP1/VP2/VP3 antibody (Cat. No. 65158, 1:100) using AAV2 capsids as sample

References

Publication	Species	Application
Emmanuel, S. N. et al. Structurally Mapping Antigenic Epitopes of Adeno-associated Virus 9: Development of Antibody Escape Variants. J. Virol. 96, (2022).	AAV5, 9	dot blot
Meng, Y. et al. Cell-penetrating peptides enhance the transduction of adeno-associated virus serotype 9 in the central nervous system. Mol Ther Methods Clin Dev. 21, 28-41(2021).	AAV9	IHC/IF
Galibert, L. et al. Functional roles of the membrane-associated AAV protein MAAP. Sci. Rep. 11, (2021).	AAV2	WB
Kuklik, J. et al. Development of a bispecific antibody-based platform for retargeting of capsid modified aav vectors. Int. J. Mol. Sci. 22, 8355 (2021).	AAV2	WB
Zhang, R. et al. Divergent engagements between adeno-associated viruses with their cellular receptor AAVR. Nat.Commun. 10, 3760 (2019)	AAV	WB