

Product datasheet

anti-AAV VP1/VP2/VP3 mouse monoclonal, B1, AFDye 488 Conjugate

Short overview

Cat. No.	61058-488
Quantity	50 µg (100 µl)
Concentration	500 µg/ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	B1
Immunogen	AAV2 capsids
Formulation	Liquid; PBS + 0.09% sodium azide
Conjugate	AFDye TM 488
Purification	Affinity chromatography
Storage	Up to 1 month: 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	WB
Reactivity	AAV1, AAV2, AAV3, AAV5, AAV6, AAV7, AAV8, AAV9, AAVDJ, AAVrh10

Applications

Western Blot (WB) 1:2,500-1:5,000 (0.1-0.2 µg/ml; detection limit 5E+09 capsids)

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. The AFDyTM 488 is a green emitting dye, structurally and spectrally equivalent to Alexa FluorR 488 and therefore ideally suited for the 488 nm laser line (excitation/emission 494/517 nm). It can be used with a common FITC filter set.

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, 928193 (2000).

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Product images

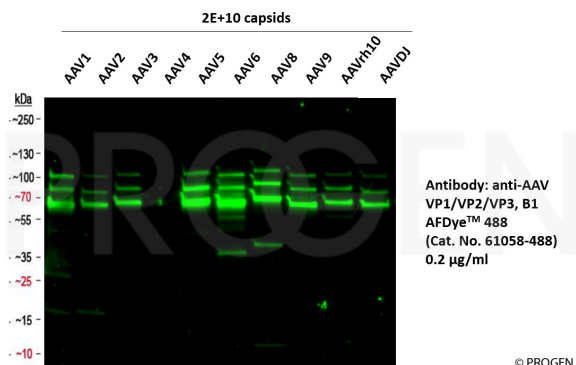


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B1 epitopes in AAV serotypes

AAV1	KSANVDFTVDNGLYTEPRPIGTRYLTRPL
AAV2	KSVNVDFTVDINGVYSEPRPIGTRYLTRNL
AAV-DJ	KSTSVDFAVNTEGVYSEPRPIGTRYLTRNL
AAV3B	KSVNVDFTVDINGVYSEPRPIGTRYLTRNL
AAV4	QQNSLLWAPDAAGKYTEPRAIGTRYLTHHL
AAV5	DPQFVDFAPDSTGEYRTRPIGTRYLTRPL
AAV6	KSANVDFTVDNGLYTEPRPIGTRYLTRPL
AAV7	KQTGVDFAVDSQGVYSEPRPIGTRYLTRNL
AAV8	KSTSVDFAVNTEGVYSEPRPIGTRYLTRNL
AAV9	KSNNVEFAVNTEGVYSEPRPIGTRYLTRNL
AAVrh10	KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL
AAVhu.37	KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL
AAVrh74	KSTNVDFAVNTEGTYSEPRPIGTRYLTRNL

Alignment of B1 epitopes in different AAV serotypes.



WB with anti-AAV VP1/VP2/VP3 AFDye™ 488 antibody (Cat. No. 61058-488, 0.2 µg/ml) using capsids of different AAV serotypes as sample.

References

Publication	Species	Application
Zhou, Y. et al. Adeno-associated virus serotype 2 capsids with proteolytic cuts by trypsin remain intact and potent. Gene Ther 11 (2024) doi:10.1038/s41434-024-00507-4.	AAV2	
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
Jacob, A. et al. Homologous Recombination Offers Advantages over Transposition-Based Systems to Generate Recombinant Baculovirus for Adeno-Associated Viral Vector Production. Biotechnol J 16, (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
Galibert, L. et al. Functional roles of the membrane-associated AAV protein MAAP. Sci. Rep. 11, (2021).	AAV2	WB