

Anti-Adeno associated virus [A20] Standard Size Ab03057-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG3 format for improved compatibility with existing reagents assays and techniques.

Isotype and Format: Human IgG1, Fc Silent™, Kappa

Clone Number: A20

Alternative Name(s) of Target: AAV-2 capsid proteins; Capsid protein VP1

UniProt Accession Number of Target Protein: P03135

Published Application(s): IP, neutralizing, ELISA, IF

Published Species Reactivity: Adeno-associated virus 2

Immunogen: The original antibody was generated by immunizing BALB/c mice with a mixture of recombinant AAV capsid proteins (VP1, VP2, and VP3).

Specificity: The antibody recognizes a conformational epitope on assembled capsid proteins of AAV-2 but it fails to detect nonassembled or denatured capsid proteins.

Application Notes: The clone was used to investigate the AAV assembly process on the cellular level. The clone was used to immunoprecipitate capsid proteins from extracts of [35S]methionine-labeled HeLa cells infected with AAV-2 and adenovirus type 2. Immunofluorescence was performed on AAV-2/adenovirus type 2-coinfected HeLa cells using this antibody (Wistuba et al, 1997; pmid:8995658). Epitope sequences on the capsid surface were identified by enzyme-linked immunoabsorbent assay using AAV-2 mutants and AAV serotypes, peptide scan, and peptide competition experiments. The clone neutralizes infection following receptor attachment by binding an epitope formed during AAV-2 capsid assembly. The antibody bound empty and full AAV-2 particles in an ELISA. In a neutralization assay, incubation of rAAV-2-GFP with A20, on HeLa cells prevented transgene expression. The clone reacted also with AAV-3 as shown by ELISA (Wobus et al, 2000; pmid:10982375). The structure for the complex AAV-2 with Fab' fragment was determined by cryo-electron microscopy (McCraw et al, 2012; pmid:22682774).

Antibody First Published in: Wistuba et al. Subcellular compartmentalization of adeno-associated virus type 2 assembly. J Virol. 1997 Feb;71(2):1341-52. PMID:8995658

Note on publication: The article describes the generation and characterization of the antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.