SZABO SCANDIC

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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Description

Adeno-Associated Virus-DJ (AAV-DJ) is a synthetic serotype made from eight different wild-type AAV serotypes (AAV2, 4, 5, 8, 9, avian, bovine, and goat AAV) using DNA shuffling. These modifications give the AAV-DJ serotype improved transduction efficiency *in vitro* and *in vivo* compared to wild-type serotypes. Consequently, AAV-DJ can infect a broad range of cell types.

These AAV particles constitutively express the firefly (*Photinus pyralis*) luciferase and mCherry genes connected via a T2A linker, under the control of a CMV promoter. The T2A self-cleaving peptide (derived from *Thosea asigna* virus 2A) leads to the efficient cleavage of the transcript, and expression of luciferase and mCherry as two separate proteins.

Application(s)

- Use as a positive control for transduction
- Optimize transduction assays and track protein expression over time

Serotype

AAV-DJ

Formulation

AAV-DJ was produced in HEK293-AAV cells and is supplied in PBS-MK (PBS Magnesium-Potassium) buffer containing 0.01% Pluronic F68.

Purification

The purity of the AAV particles was confirmed to be greater than 90% by staining with One-Step Lumitein™ UV Protein Gel Stain (Biotium #21005-1L). The purity will vary with each lot; the exact value will be provided with each shipment.

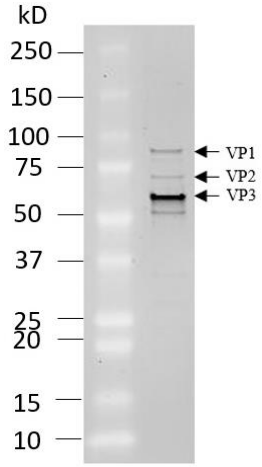

Figure 1. Purified AAV-DJ Luciferase-mCherry particles.
Staining of a 4-20% SDS-PAGE gel. The protein ladder is in lane 1, and 2 x 10^9 GC (genome copy number) of AAV-DJ is in lane 2. AAV viral proteins VP1, VP2, and VP3 are labeled.

Titer

Two vials (50 µl x 2) of AAV at a titer ≥1 x 10^{12} TU/ml. The titer is determined by qPCR and will vary with each lot; the exact value is provided with each shipment.

Storage

AAV is shipped with dry ice. For long-term storage, it is recommended to store AAV at -80°C. Avoid repeated freeze-thaw cycles. Titers can drop significantly with each freeze-thaw cycle.

Biosafety

Recombinant AAV is inherently replication-deficient and not known to cause any human diseases. Additionally, following transduction, AAV vectors exist episomally and do not integrate into or disrupt the host cell's genome. AAV requires the use of a Biosafety Level 1 facility. BPS Bioscience recommends following all local, federal, state, and institutional regulations and using all appropriate safety precautions.

Validation Data

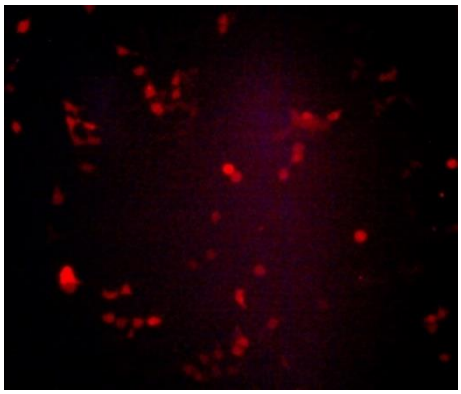

Figure 2. Transduction of HEK293 cells using AAV-DJ Luciferase-mCherry particles.
1 x 10^5 cells/well were transduced in a 6-well plate with AAV-DJ Luciferase-mCherry at an MOI of 2 x 10^4. After 72 hours of transduction, mCherry expression in the target cells was observed under a fluorescence microscope. mCherry expression was stable over time and still observed 30 days after transduction.

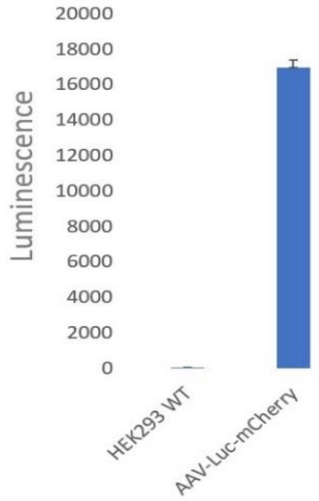

Figure 3. Luciferase activity of HEK293 cells transduced by AAV-DJ LuciferaseT2A-mCherry particles.
1 x 10^5 cells/well were transduced in a 6-well plate with AAV-DJ Luciferase-T2A-mCherry at an MOI of 2 x 10^4. After 72 hours of transduction, transduced cells or parental HEK293 cells were seeded in a 96-well plate at a density of 2 x 10^4 cells/well, and luciferase activity was measured using the ONE-Step™ luciferase assay system (BPS Bioscience #60690).

Notes
The AAV-DJ viruses are covered under several patents, including U.S. Patent Nos. 7,588,772, 8,067,014, 8,574,583, and 8,906,387, as well as corresponding foreign patents applications and patent rights. AAV-DJ is used under a license agreement.

Troubleshooting Guide
Visit bpsbioscience.com/lentivirus-faq for detailed troubleshooting instructions. For all further questions, please email support@bpsbioscience.com.

Related Products

Products	*Catalog #*	*Size*
AAV1 ZsGreen	78443	50 µl x 2
AAV2 ZsGreen	78444	50 µl x 2
AAV5 ZsGreen	78447	50 µl x 2
AAV8 ZsGreen	78449	50 µl x 2
AAV9 ZsGreen	78450	50 µl x 2
AAV-DJ ZsGreen	78442	50 µl x 2
AAV-DJ SaCas9	78478	50 µl x 2