



# SZABO SCANDIC

Part of Europa Biosite

## 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 ZsGreen under a CMV promoter. ZsGreen is a human codon-optimized variant of the green fluorescent protein isolated from reef coral (*Zoanthus sp.*). It has been engineered for higher expression in mammalian cells and is up to four times brighter than enhanced GFP (eGFP). ZsGreen expression and AAV transduction efficiency can easily be verified and optimized by fluorescence microscopy or flow cytometry. ZsGreen has an excitation wavelength of 493 nm and an emission wavelength of 505 nm.

### 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.

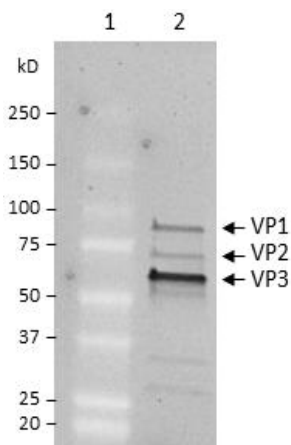


Figure 1. Purified AAV-DJ ZsGreen particles.

Staining of a 4-20% SDS-Page gel. The protein ladder is in lane 1, and  $10^{10}$  GC (genome copy number) of AAV is in lane 2. AAV viral proteins VP1, VP2, and VP3 are labeled.

### Titer

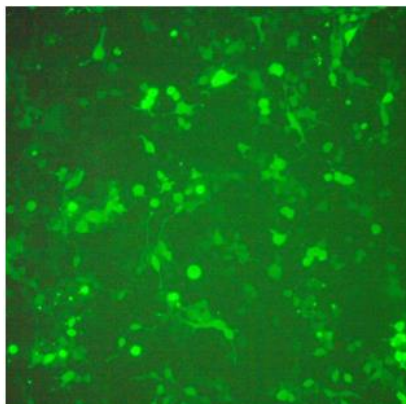
Two vials (50  $\mu$ l x 2) of AAV at a titer  $\geq 1 \times 10^{12}$  TU/ml. The titer is determined by qPCR and will vary with each lot; the exact value will be provided with each shipment.

**Storage**

AAV is shipped with dry ice. For long-term storage, it is recommended to store AAV at  $-80^{\circ}\text{C}$ . 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 ZsGreen particles.*

$1 \times 10^5$  cells were transduced in a 6-well plate with AAV-DJ ZsGreen at an MOI of  $1 \times 10^4$ . After 72 hours of transduction, ZsGreen expression in the target cells was observed under a fluorescence microscope. ZsGreen expression was stable over time and still observed 30 days after transduction.

**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](https://bpsbioscience.com/lentivirus-faq) for detailed troubleshooting instructions. For all further questions, please email [support@bpsbioscience.com](mailto:support@bpsbioscience.com).

**Related Products**

| <i>Products</i>           | <i>Catalog #</i> | <i>Size</i>          |
|---------------------------|------------------|----------------------|
| AAV1 ZsGreen              | 78443            | 50 $\mu\text{l}$ x 2 |
| AAV2 ZsGreen              | 78444            | 50 $\mu\text{l}$ x 2 |
| AAV8 ZsGreen              | 78449            | 50 $\mu\text{l}$ x 2 |
| AAV9 ZsGreen              | 78450            | 50 $\mu\text{l}$ x 2 |
| AAV-DJ Luciferase-mCherry | 78469            | 50 $\mu\text{l}$ x 2 |