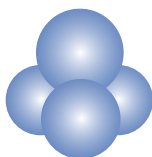


# Product Specification Sheet

<b>Product Name</b>	<b>pAAVS1-SA-T2A-Puro-SV40pA-copGFP-SFFV Control donor Vector</b>
<b>Description</b>	<p>Human AAVS1 donor vectors are meticulously designed to target the human AAVS1 "safe harbor" site nestled within intron 1 of the PPP1R12C gene (protein phosphatase 1 regulatory subunit 12C). This specific locus is aptly called a "safe harbor" because it exerts minimal influence on cellular functions. It excels in supporting robust transcription, making it an ideal site for maintaining the expression of an externally introduced gene while mitigating the risk of unintentional integration elsewhere. Our state-of-the-art control donor vectors feature a copGFP gene strategically placed in reverse orientation downstream of the SFFV promoter and upstream of a poly-A tail. This setup ensures a straightforward pathway for achieving enduring and strong copGFP expression. Furthermore, by strategically integrating the Puromycin selection marker with a splice acceptor (SA) site within the intronic region of the AAVS1 safe harbor locus, independent of its own promoter, Puromycin-resistant gene expression becomes closely tied to intron integration. This significantly reduces the risk of unintended off-target integrations when employing Puromycin selection. The pAAVS1-SA-T2A-Puro-SV40pA-copGFP-SFFV control donor vector, when used in conjunction with the SpCas9 nuclease and AAVS1 gRNA expression vector, enables the seamless integration of a bright copGFP into the AAVS1 safe harbor site, making it an effective integration marker.</p>
<b>Catalog Number</b>	AC9421
<b>Size</b>	10 µg at 0.5 µg/µL in TE
<b>Shipping</b>	Room temperature
<b>Storage and Stability</b>	Store at -20°C immediately upon receipt. This product is stable for 6 months when stored as directed.
<b>Quality Control</b>	This plasmid is sequence verified.
<b>Safety Precaution</b>	This product does not contain any hazardous materials with occupational exposure limits. Nevertheless, ALSTEM strongly advises anyone handling this product to use suitable protective eyewear, such as chemical safety goggles or protective glasses, along with gloves and appropriate clothing to prevent skin contact.
<b>Restricted Use</b>	For Research Use Only. Not for use in diagnostic or therapeutic procedures.



## **ALSTEM, INC**

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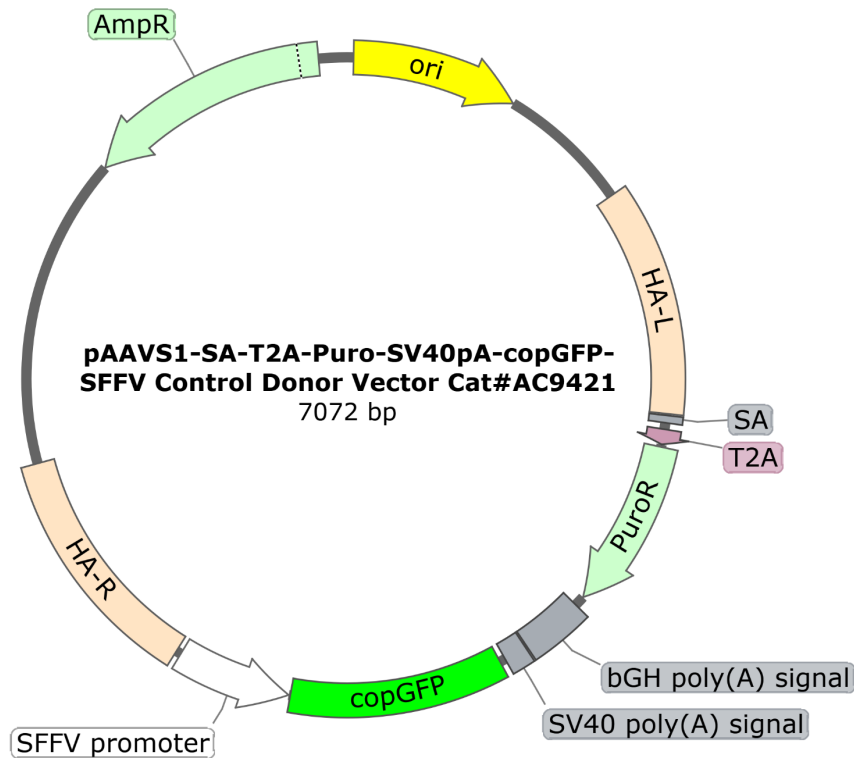
[www.alstembio.com](http://www.alstembio.com)

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## Vector Information

This AAVS1 donor vector includes essential components to serve as a reliable integration marker in the AAVS1 Safe Harbor site. It incorporates a universal SA-T2A-Puro cassette, facilitating the integration of copGFP driven by an SFFV promoter into the AAVS1 safe harbor site through antibiotic selection. This vector is suitable for generating stable cell lines.

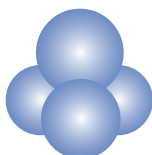
Created with SnapGene®



*Note: Bacterial culture of AAVS1 vectors should be done in medium containing 100 µg/mL Carbenicillin. For maximal plasmid yield and quality, we recommend Stbl3 competent cells (Invitrogen).*

### IMPORTANT NOTICE

Store the vial at -20°C immediately upon receipt.



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