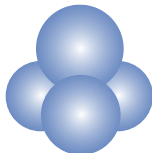


Product Specification Sheet

Product Name	pAAVS1-SA-T2A-Neo-MCS Donor Vector
Description	<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. The multiple cloning site (MCS) allows insertion of a custom promoter and GOI for optimal transgene expression upon donor vector integration into AAVS1 loci. Furthermore, leveraging the intronic location of the AAVS1 safe harbor locus, the neomycin selection marker is thoughtfully integrated with a splice acceptor (SA) site, devoid of its own promoter. This design guarantees that neomycin-resistant gene expression can only occur when the construct integrates within an intron. Consequently, neomycin-resistant gene expression becomes intricately linked to the PPP1R12C transcript, significantly reducing the risk of unintended off-target integrations when employing G418 selection. The pAAVS1-SA-T2A-Neo-MCS vector plays a pivotal role in the Alstem pAAVS1/Cas9 Knock-In vector system. It provides the maximum potential for expressing the GOI, serving as a customizable platform for your own system. When used in conjunction with the SpCas9 nuclease and a gRNA expression vector, it enables the seamless integration of the GOI into the AAVS1 safe harbor site, simplifying the process of enhancing GOI expression.</p>
Catalog Number	AC2002
Size	10 µg at 0.5 µg/µL in TE
Shipping	Room temperature
Storage and Stability	Store at -20°C immediately upon receipt. This product is stable for 6 months when stored as directed.
Quality Control	This plasmid is sequence verified.
Safety Precaution	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.
Restricted Use	For Research Use Only. Not for use in diagnostic or therapeutic procedures.



ALSTEM, INC

2600 Hilltop Drive, BLDG B, STE C328, Richmond, CA 94806

Tel: (510) 708-0096

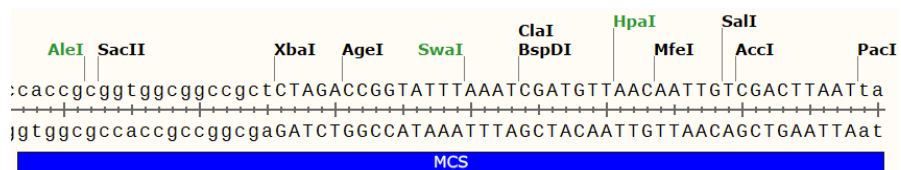
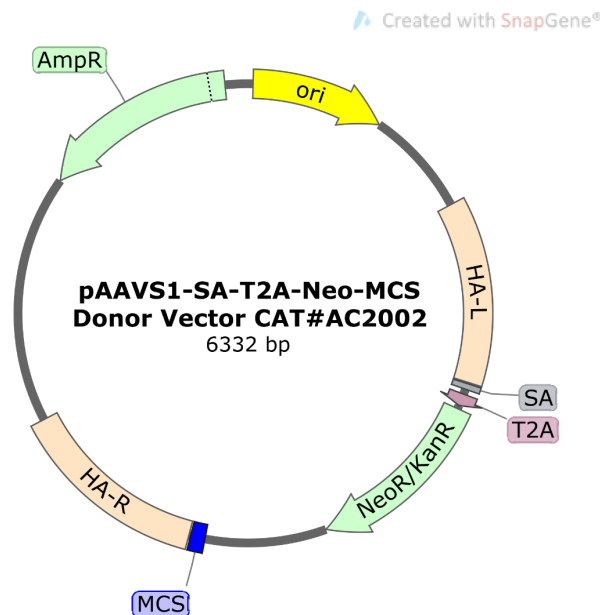
Fax: (866) 605-8766

www.alstembio.com

info@alstembio.com

Vector Information

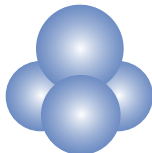
This is an AAVS1 donor vector that contains the necessary elements for introducing a GOI (gene of interest) to the AAVS1 Safe Harbor site. A ubiquitous SA-T2A-NeoR cassette ensures the intergration of the GOI in the AAVS1 safe harbor site by antibiotic selection. The MCS is located on the upstream of HAR. This vector can be used for stable cell line generation.



*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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