



Substrate-free Autobioluminescent Vectors (pCMV_{lux} Vector)

Product Information

Catalog Number	ASV-1001
Description	<p>The pCMV_{lux} vector encodes a fully human expression-optimized synthetic luciferase reporter gene cassette based on the bacterial luciferase (<i>Photobacterium luminescens</i>) operon, under the control of a strong cytomegalovirus (CMV) promoter for constitutive autobioluminescent expression across a wide range of mammalian cell types. An integrated neomycin resistance selection marker allows for either transient or stable expression of the autobioluminescent phenotype in your cell line of choice.</p> <p>This vector contains the following features:</p> <ul style="list-style-type: none">• Human-optimized <i>lux</i> reporter cassette for expression in mammalian cells• Inter-gene linker regions for coordinated cassette expression• CMV promoter for high translational expression• Neomycin resistance gene for mammalian cell selection of the plasmid• Ampicillin resistance gene for bacterial selection of the plasmid
Quantity	1 µg
Storage Buffer	The pCMV _{lux} vector is supplied in 10 mM Tris-HCl (pH 7.4), 1 mM EDTA.
Shipping	Blue ice
Storage and Stability	Store at -20° C. Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes. Temperature fluctuations can greatly alter product stability.
Usage Note	Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.

Plasmid Map and Information

The pCMV_{lux} plasmid features:

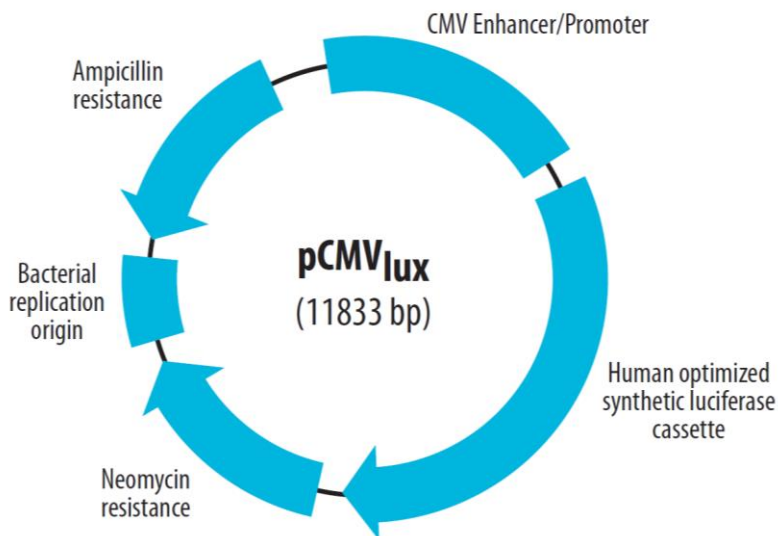
CMV immediate early enhancer/promoter	30 - 780 bp
Human optimized synthetic luciferase cassette	971 - 7675 bp
Neomycin resistance region	8450 - 9814 bp
Bacterial replication origin	10039 - 10720 bp
Ampicillin resistance region	10817 - 11477 bp

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Precautions and Disclaimers

Restrictions on Modification

Researchers shall have no right to modify or otherwise create variations of the nucleotide sequence of the luciferase cassette genes except that researchers may: (1) create fused gene sequences provided that the coding sequence of the resulting luciferase cassette has no more than four deoxynucleotides missing at the affected terminus compared to the intact luciferase cassette sequence, and (2) insert and remove nucleic acid sequences in splicing research predicated on the inactivation or reconstruction of the luminescence of the encoded luciferase cassette. No other use or transfer of this product or derivatives is authorized without the prior express written consent of Applied StemCell, Inc.

Limited Use Label License

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Safety Precaution

PLEASE READ BEFORE HANDLING ANY FROZEN VIALS. These cells should be treated as biosafety level 1. Please wear the appropriate Personal Protective Equipment (lab coat, thermal gloves, safety goggles and a face shield) when handling the cells. Handle the frozen vials with due caution. Please be aware that the following scenario may occur: Liquid nitrogen may leak into the vials when the vials are submerged in liquid nitrogen. Upon thawing, the liquid nitrogen returns to the gas phase, resulting in a dangerous build-up of pressure within the vial. This can result in the vial exploding and expelling not only the vial contents but also the vial cap and plastic fragments of the vial.

Disclaimer

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