

Certificate Of Analysis

Product Description

PathHunter® β -Arrestin2 Retroparticles enable the creation of stable β -arrestin2 cell lines in any cell type and the development of a β -arrestin2 assay for analyzing the activation of GPCRs, desensitization of most 7-transmembrane receptors, and regulation of other signaling molecules such as protein kinases. The retroparticles are Moloney murine leukemia retrovirus (MMLV) expressing β -arrestin2 fused to the β -galactosidase (β -gal) reporter fragment called EA (enzyme acceptor). The retroparticles can be used for effective transduction of a wide variety of dividing target cells (e.g. CHO, HEK293, U2OS) resulting in high-level expression of the encoded β -arrestin2-EA fusion protein. This product is intended for use with a plasmid expressing a ProLink™-tagged GPCR (or another β -arrestin binding protein) to create assays that report on β -arrestin binding or ligand-induced β -arrestin2 recruitment to the GPCR or β -arrestin binding protein of interest.

Product Information	
Product Name	PathHunter® β -Arrestin2 Retroparticles
Cryovial Label	PathHunter® β -Arrestin2 Retroparticles
Part #	93-1087
Lot #	21L0204
Vial Contents	0.5 mL

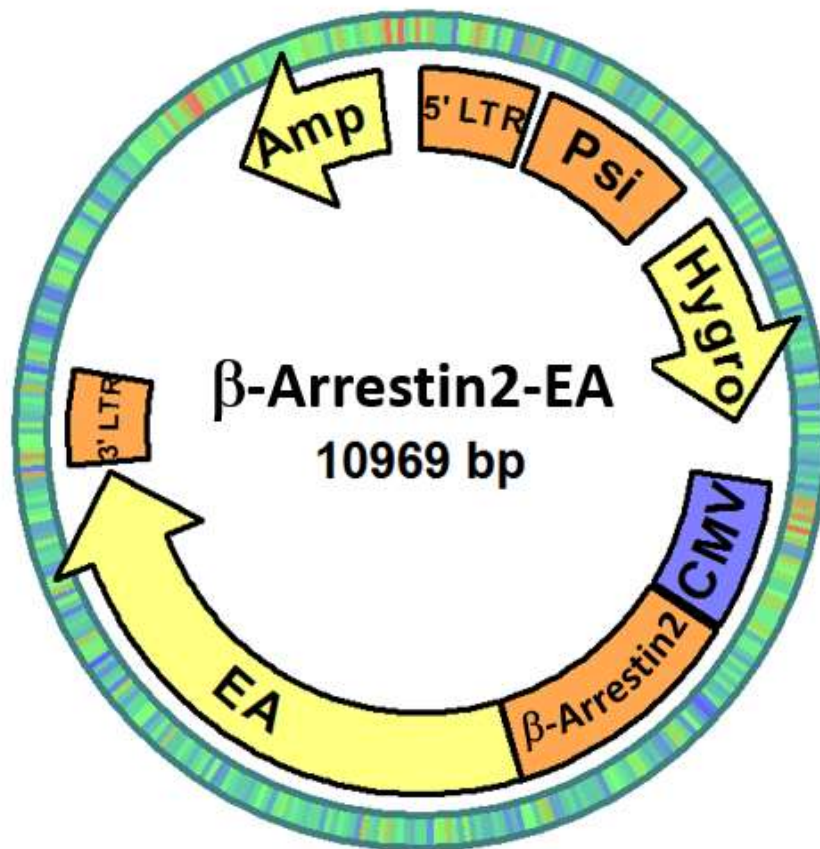
Shipping and Storage Information	
Storage Conditions	Store at -80°C. Do not freeze/thaw.
Shipping Conditions	Dry ice
Expiration Date	2/4/2024

IMPORTANT SAFETY NOTE: Replication-defective retroviral particles, such as provided in this product are not known to cause any diseases in humans or animals. However, retroviral particles can transduce, express protein and/or integrate into human cells. Accordingly, this material is in Risk Group 2 and should be handled under BSL2 controls as defined by the US Public Health Service. Please refer to the CDC Biosafety Manual: <http://www.cdc.gov/biosafety/publications/bmbl5/index.htm> for details.

Use and Handling	
Biosafety Level	2 (Biosafety classification is based on US Public Health Service guidelines)
Product User Manual	PathHunter® β -Arrestin2 Retroparticles User Manual
Single Use	For one time use only. Repeated freeze/ thaw will result in loss of activity.
Recommended Use	Transduction of various dividing target cells to generate stable PathHunter β -Arrestin2-EA cell lines for use with PathHunter Detection kit.
Acceptable Use	Research Use Only. Not for use in Humans.

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Vector Information		
Vector	pMLV backbone	Vector identification was confirmed by sequencing
Viral Elements	5' and 3' LTRs	
Viral Replication Status	Replication incompetent retroviral particles - helper virus free. Retrovirus can only infect dividing cells.	
Antibiotic Resistance	Hygromycin	Expression driven by 5' retroviral LTR promoter
Gene Insert	β -arrestin2-EA	Expression driven by CMV promoter
Viral Pseudotype	VSV-G envelope	Suitable for infecting all mammalian cell types



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Quality Control Data

Titer: The titer of viral particles was determined by plaque formation at limiting dilution on adherent cells after 7 days under selection with the appropriate antibiotic. Additional details of this and other QC tests available upon request.

Analytical QC Tests	
Viral Titer	1 x 10 ⁴ cfu/mL
Mycoplasma	Passed
Sterility	Passed

Functional: Transduction and expression of the EA-tagged protein from these retroparticles was functionally assessed in the indicated cells. Following transduction and antibiotic selection for at least 7 days (as indicated) the transduced cells were treated as described by addition of ED, cell lysis buffer and PathHunter® Flash Detection Reagents (DiscoverX, Cat. # 93-0247).

Functional Test				
Cell Line	Average RLU (-ED)	Average RLU (+ED)	S:B Ratio	Days in Selection
U2OS	1340	489200	365	7

Signatures

Signature: _____
Documented by Rene Hoffman

Date: 02/24/2022

Signature: _____
Approved by Paul Shapiro, PhD

Date: 02/24/2022