DiscoverX

Certificate Of Analysis

Product Description

KILR® Retroparticles for Adherent Cells (G418) contains MMLV particles, that can transduce a wide variety of adherent cells, resulting in high level expression with a housekeeping gene tagged with β-gal reporter fragment, ProLabel® (ePL). This results in a high level of expression of the fusion protein inside the target cells. Target cell death in a cytotoxicity assay results in the release of the ePL-tagged protein into the medium. Addition of KILR detection reagent, containing the complementing β-gal reporter fragment, EA, results in complementation of the two enzyme fragments (EA and ePL). The resulting functional enzyme hydrolyzes a substrate to generate a chemiluminescent signal.

Product Information	
Product Name	KILR® Retroparticles for Adherent Cells (G418)
Cryovial Label	KILR® Retroparticles for Adherent Cells (G418)
Part #	97-0004
Lot #	21F1702
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	9/18/2023

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	KILR® Retroparticles For Cytotoxicity Assays
Single Use	For one time use only. Repeated freeze/ thaw will result in loss of activity.
Acceptable Use	Research Use Only. Not for use in Humans.

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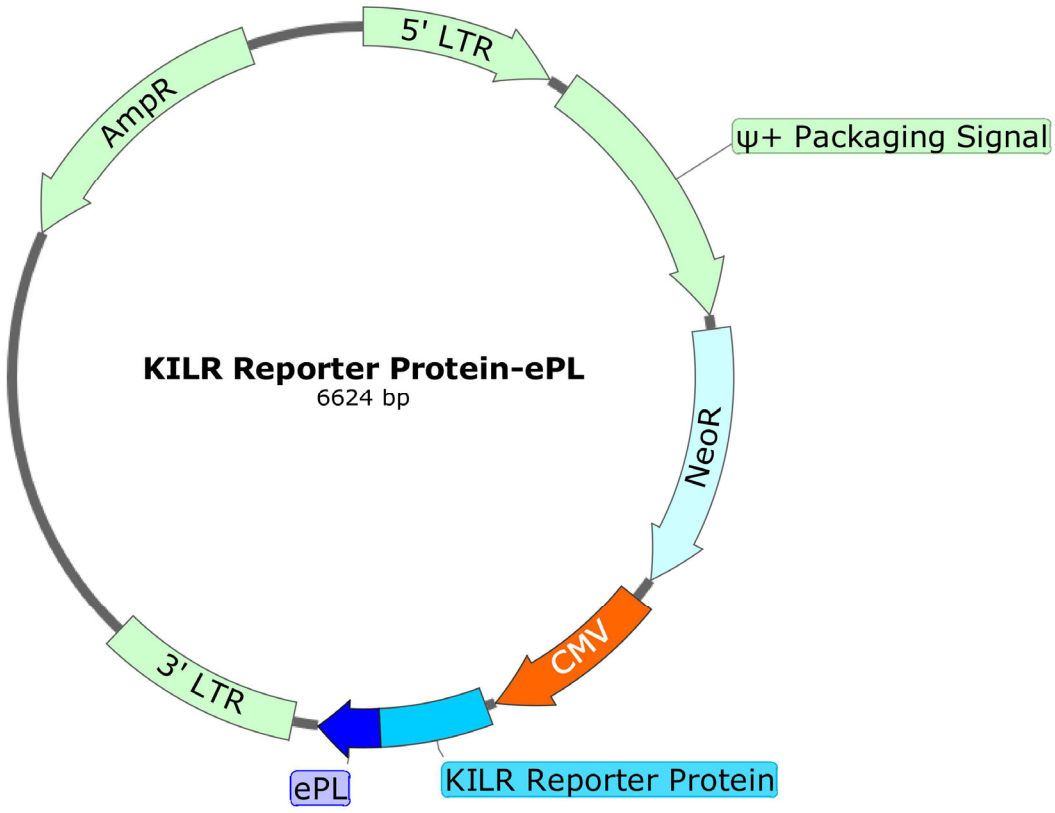
Retroparticles Vector Information		
Vector	pMLV backbone	Vector identification was confirmed by sequencing
Viral Elements	5' and 3' LTRs	
Viral Replication Status	Replication incompetent retroviral particles - helper virus free. Retrovirus can only infect dividing cells.	
Antibiotic Resistance	G418	Expression driven by 5' retroviral LTR promoter
Reporter	Housekeeping Gene tagged with ePL	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 concentration. Titer (plaque forming units/mL, abbreviated pfu/mL) was calculated by multiplying the number of colonies per well by the dilution factor divided by the volume (in mL) used in the experiment. Additional details of QC tests available upon request.

Analytical QC Tests	
Viral Titer	3 x10^7 cfu/mL
Mycoplasma	Passed
Sterility	Passed

Functional: Transduction and expression of the PK-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 EA, cell lysis buffer and PathHunter® Flash Detection Reagents (DiscoverX, Cat. # 93-0247).

Functional Test				
Cell Line	**Average RLU (-EA)**	**Average RLU (+EA)**	**S:B Ratio**	**Days in Selection**
U2OS	8450	669910	79	7

Signatures

Signature: Rene Hoffman DN: cn=Rene Hoffman, o=Eurofins DiscoverX, ou=Research and Development, email=ReneHoffman@eurofinsUS.com, c=US Date: 2023.04.07 11:02:43 -07'00' **Date:** 4/07/2023

Documented by René Hoffman
Associate Scientist

Signature: **Date:** 04/06/2023

Approved by Chao-Tsung Yang, PhD
Principle Scientist, R&D

Certificate Of Analysis

Product Description

KILR® Retroparticles for Suspension Cells (G418) contains MMLV particles, that can transduce a wide variety of suspension cells with a housekeeping gene tagged with ProLabel® (ePL), a β-gal reporter fragment. This results in a high level of expression of the fusion protein inside the target cells. Target cell death in a cytotoxicity assay results in the release of the ePL-tagged protein into the medium. Addition of KILR detection reagent, containing the complementing β-gal reporter fragment, EA, results in complementation of the two enzyme fragments (EA and ePL). The resulting functional enzyme hydrolyzes a substrate to generate a chemiluminescent signal.

Product Information	
Product Name	KILR® Retroparticles for Suspension Cells (G418)
Cryovial Label	KILR Retroparticles (G418) - Suspension
Lot #	23C1408
Vial Contents	1.0 ml

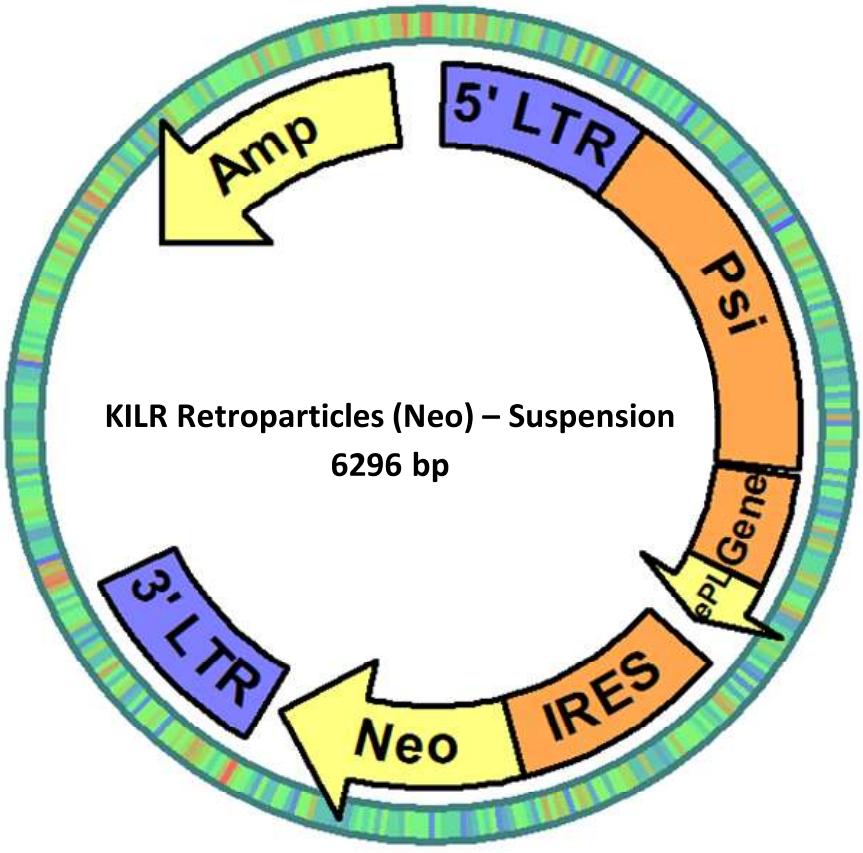
Shipping and Storage Information	
Storage Conditions	Store at -80°C. Do not freeze/thaw.
Shipping Conditions	Dry ice (-80°C)
Expiration Date	6/15/2025

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	KILR™ Retroparticles For Cytotoxicity Assays
Single Use	For one time use only. Repeated freeze/ thaw will result in loss of activity.
Recommended Use	Transduction of suspension cells to generate KILR cell lines, for use in cytotoxicity assays
Acceptable Use	Research Use Only. Not for use in Humans.

Certificate Of Analysis

Retroparticles 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	Neomycin	Expression driven by 5' retroviral LTR promoter
KILR Reporter	Housekeeping Gene tagged with ePL	Hybrid murine moloney leukemia virus/murine sarcoma virus (MMLV/MSV) retroviral LTR promoter
Viral Pseudotype	VSV-G envelope	Suitable for infecting all mammalian cell types



Certificate Of Analysis

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 concentration. Titer (plaque forming units/mL, abbreviated pfu/mL) was calculated by multiplying the number of colonies per well by the dilution factor divided by the volume (in mL) used in the experiment. Additional details of QC tests available upon request.

Analytical QC Tests	
Viral Titer	7.5 X 10^7 cfu/ml
Mycoplasma	Passed
Sterility	Passed

Functional: KILR™ ePL-reporter protein expression was functionally assessed in indicated cell line(s) to confirm transduction of the KILR Retroparticles. Following transduction and antibiotic selection for 7 days the target cells were treated as described for "Total Lysis Control" wells by addition of lysis buffer and KILR Detection Reagents (DiscoverX, Cat. # 97-0001).

Functional Test				
Cell Line	**Average RLU (-EA)**	**Average RLU (+EA)**	**S:B Ratio**	**Days in Selection**
Jurkat	31220	1294730	41	7

Signatures

Signature: Rene Hoffman DN: cn=Rene Hoffman, o=Eurofins DiscoverX, ou=Research and Development, email=ReneHoffman@eurofinsUS.com, c=US Date: 2023.04.07 11:03:17 -07'00' **Date:** 4/07/2023

Documented by Rene Hoffman
Scientist I

Signature:  **Date:** 04/06/2023

Approved by Chao-Tsung Yang, PhD
Principal Scientist