

## Product Description

Product Name: VV<sub>(WR)</sub>-CBG-RFP (Standard Titer, 0.25 mL)  
 Catalog Number: OV4007  
 Lot Number: OV-IM19

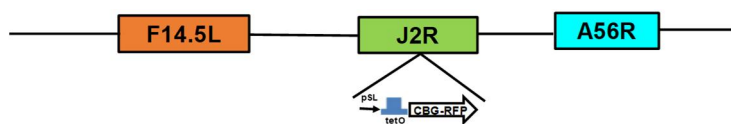
Shipping conditions: Dry ice  
 Storage conditions: Store at  $\leq -70^{\circ}\text{C}$  upon receipt, avoid subjecting to multiple freeze-thaw cycles

Species: Vaccinia  
 Virus strain: Western Reserve (WR)  
 Transgenes: Red fluorescence protein (RFP)  
 Click beetle green luciferase (CBG)

Production Cell Line: Vero  
 Storage Media: 1mM TrisCl, pH 9  
 Propagation: Inoculate producer cells (e.g. Vero) at an MOI of 0.1 for 2-3 hours. After 48 hours harvest culture supernatant and cells and freeze-thaw or sonicate 3X. Clarify the supernatant by low-speed centrifugation and purify through a sucrose cushion. Resuspend the viral pellet in 1mM TrisCl, pH 9.

VV<sub>(WR)</sub>-CBG-RFP is a recombinant vaccinia virus (VV) encoding the tet-operator sequence *tetO* followed by the click beetle green luciferase (CBG)-red fluorescence protein (RFP) fusion cDNA under transcriptional control of the VV synthetic late (pSL) promoter. This additional transcription unit is inserted into, and disrupts the function of, the viral J2R (thymidine kinase) gene (see diagram below). The purchased virus is ready for use in cell-killing assays or can be amplified to create additional virus stocks

## Genome:



## References:

Zhang et al. Cancer Res 2007, 67:10038-10046  
 Stritzker et al, J. Virol. 2014, 88: 11556-11567  
 Duggal et al, J. Transl. Med. 2013, 11:155.  
 Puhlmann, et al., Cancer Gene Therapy, 2000 7, 66-73  
 Gholami et al. Breast Cancer Research, 2013, 15: R26  
 Kirschner et al., Theranostics, 2015, 5(10):1045-1057

## Safety Precaution:

All culture work with Vaccinia should be performed by trained personnel and performed under BSL2 containment following NIH guidelines.

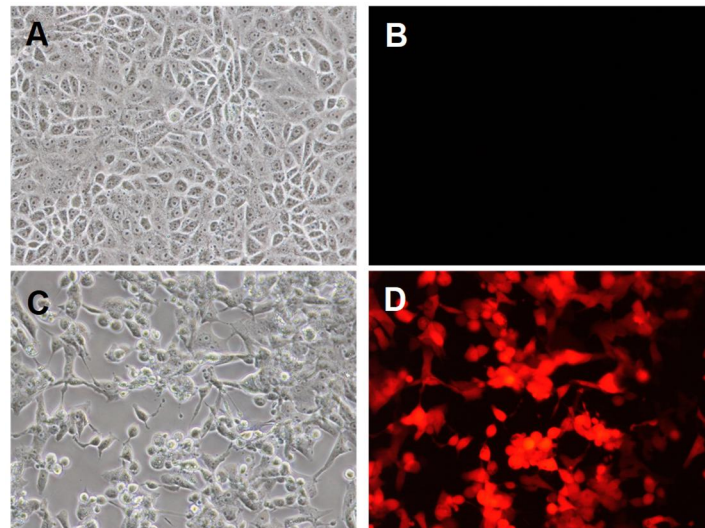


## Certificate of Analysis

Testing performed by Imanis Life Sciences

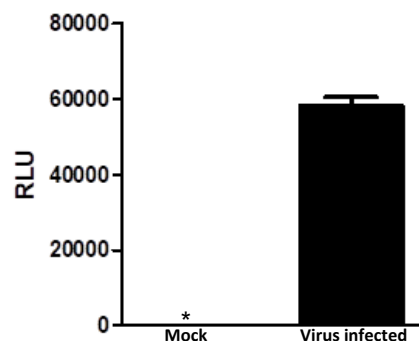
Test description	Result
Titer (on Vero)	$5.93 \times 10^8$ TCID <sub>50</sub> units/mL
Sterility	Pass QC
Cytopathic Effect	Pass QC
Endotoxin Test	Pass QC
Fluorescence Expression	Pass QC
Luciferase Expression	Pass QC

## Infectivity



Vero cells were mock-infected (A-B) or infected with VV<sub>(WR)</sub>-CBG-RFP (MOI 0.1) (C-D). Photos taken at 200x magnification at 48 h.p.i.

## Luciferase Expression



Vero cells were mock-infected (-) or infected with VV<sub>(WR)</sub>-CBG-RFP at an MOI of 0.1. After 48 hours, d-luciferin was added to the wells and luminescence (RLU) was immediately measured using a microplate reader.

Quality Control by: MT

Quality Assurance by: RLV

Effective Date: 17-Nov-2017

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For research use only. This certificate is a declaration of analysis at the time of manufacture

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