

Research Use Only. Not for use in diagnostic procedures.

IVISbrite™ LL/2 Red-F-Luc Bioluminescent Tumor Cell Line

Product No.: BW119267

Material Provided

Cells: 2 x 1 mL frozen aliquots (BW119267V)

Format: 1.0 x 10⁶ cells / mL in 95% FBS, 5% DMSO

DESIGNATION	LL/2 Red-FLuc
Tissue	Mouse: lung carcinoma
Source of Parental Line	ATCC (CRL-1642)
Gene Transfer Vehicle	Red-FLuc-Puro 3d generation lentivirus
Bioluminescence In Vitro	At least 5,000 photons/cell/sec. Exact number will vary depending on imaging and culturing conditions.
Culture Properties	Mixed, adherent and suspension* ; viability cannot be determined solely by cell attachment. Refer to the cell culture guidelines for more detailed instructions.
Recommended Media and FBS	DMEM ATCC Cat. No. 30-2002. Supplement the above with 10% Hyclone Fetal Bovine Serum (FBS) GE HealthCare Cat. No. 300071.
Recommended Storage Conditions	Remove frozen cells from dry ice packaging and immediately place cells at a temperature below -130° C, preferably in liquid nitrogen vapor, until ready to use.
Average Doubling Time	24 hours
Other Recommendations	When initially thawing, use T25 flask or 10cm plate. Cells should be ready to expand within 1-4 days. Antibiotics can be used in the media if desired after the initial thaw. (puromycin at 2ug/mL). Refer to Cell Culture Guidelines for more detailed instructions.

* Please refer to Morphology on page 2 of this document.

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com



For a complete listing of our products, visit www.perkinelmer.com.

Copyright ©2015, PerkinElmer, Inc. All rights reserved. PerkinElmer® is a registered trademark of PerkinElmer, Inc. All other trademarks are the property of their respective owners.

The Features

PerkinElmer IVISbrite™ cell line models offer researchers the ability to:

- Monitor early tumor development
- Monitor tumor growth and metastases *in vivo*
- Quantify tumor burden in the whole animal
- Follow responses to therapeutic treatments non-invasively in longitudinal studies using the same cohorts of mice

Murine Pathogen Free

All PerkinElmer cell lines are confirmed to be pathogen free by the IMPACT Profile I (PCR) at the University of Missouri Research Animal Diagnostic and Investigative Laboratory.

Cell Line Stability

Cell may undergo genotypic changes resulting in reduced responsiveness over time in normal cell culture conditions. Genetic instability is a biological phenomenon that occurs in all stably transfected cells. Therefore, it is recommended to prepare an adequate number of frozen stock at early passages.

Product Warranty

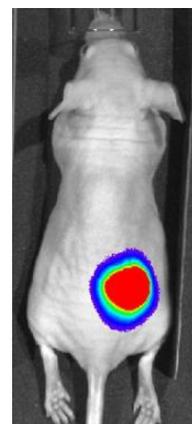
PerkinElmer warrants that cells will be viable upon shipment from PerkinElmer for a period of thirty days, provided they have been properly stored and handled during this period.

Murine Lung Carcinoma Cell Line: LL/2 Red-FLuc

LL/2 Red-FLuc is a luciferase expressing cell line which was stably transfected with firefly luciferase gene from *Luciola Italica* (Red-FLuc). The cell line was established by transducing lentivirus containing Red-FLuc luciferase under the control of human ubiquitin C promoter. These cells will serve as a new tool to detect drug efficacy *in vitro* and *in vivo* with high sensitivity.

Morphology

LL/2 Red-FLuc is a mixture of adherent and suspension cells that will normally appear in culture as rounded and loosely attached or fully suspended cells. Expect to see irregularly shaped clusters of cells in suspension for the first several days. Cells that do attach may resemble epithelial morphology, but can detach easily and form large suspended aggregates of healthy, growing cells. Refer to Cell Culture Guidelines for more detailed instructions.



Bioluminescence image of LL/2 Red-FLuc subcutaneous tumor

Growth Curve of LL/2 Red-FLuc Cells

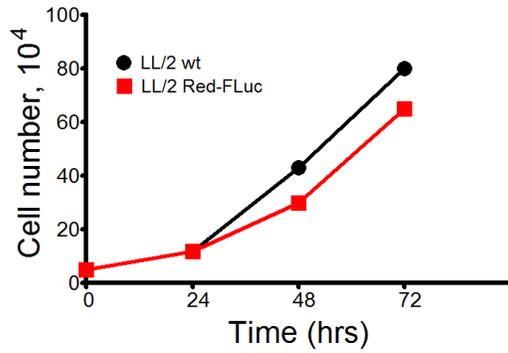


Figure 1. 5×10^4 cells were plated on a 6cm plate. The total numbers of cells were counted every 24 h using a Nexcelom automatic cell counter.

In Vitro BLI Signal Stability

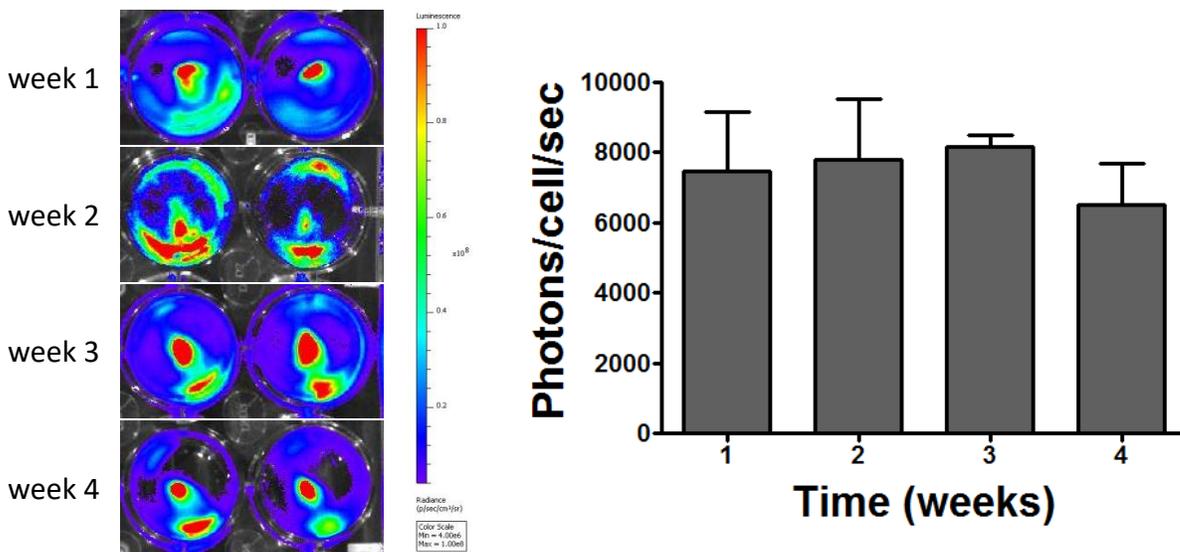
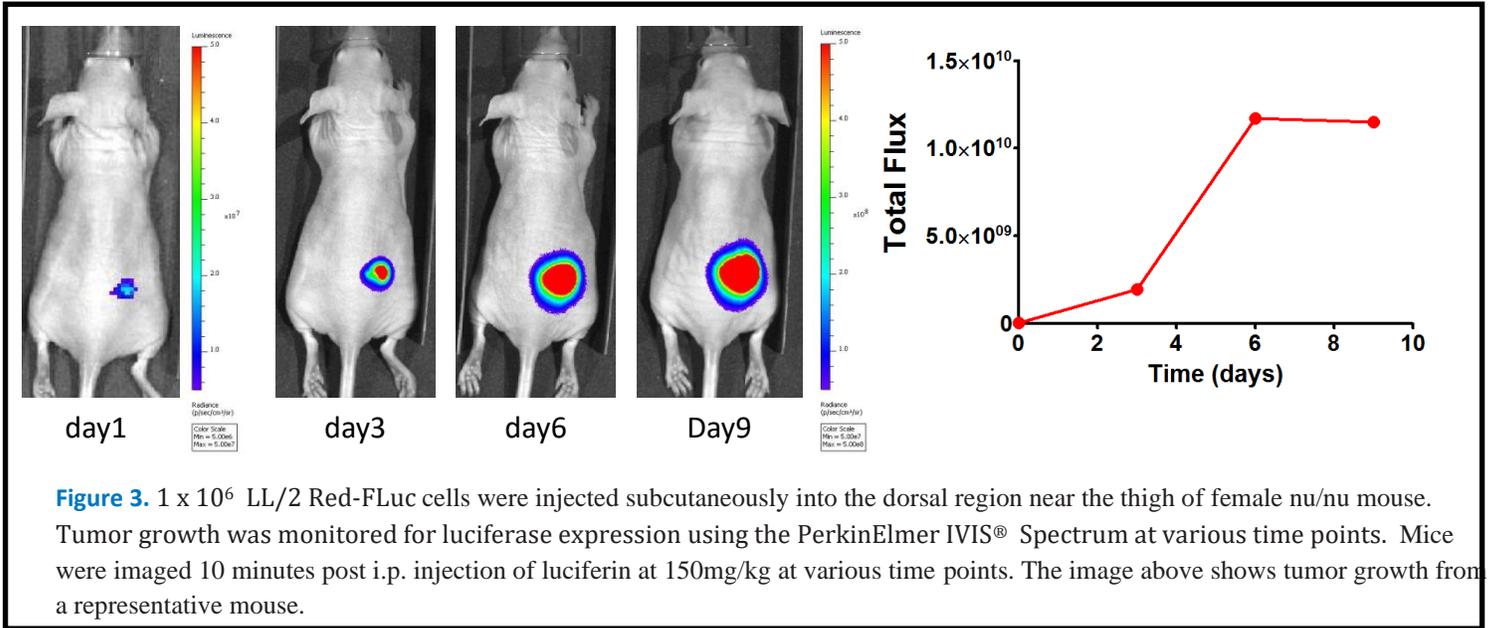
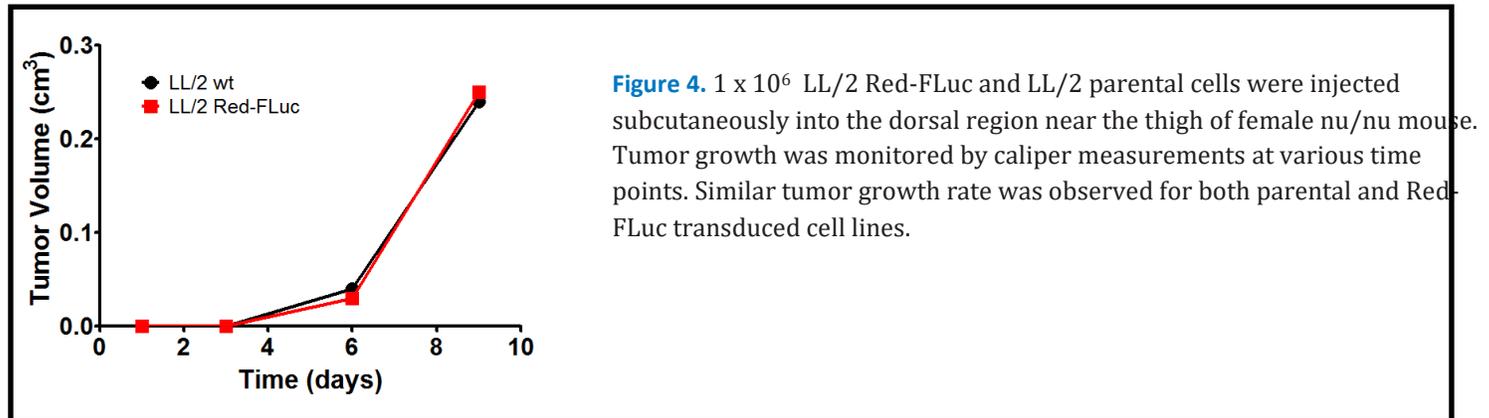


Figure 2. 5×10^4 cells were plated per well in 24-well plates. Cells were incubated at 37 °C for recovery overnight and luciferase assay was performed using the PerkinElmer IVIS[®] SpectrumCT. Each experiment was done in quadruplicates. The cells were maintained in continuous culture over four weeks and weekly luciferase assay was performed. Bioluminescence data was analyzed using the Living Image 4.0 software.

Subcutaneous Tumor Growth in a Nu/nu Mouse



Tumor Growth Comparison Between Wild Type and Red-FLuc Cells



For more information on our *in vivo* imaging agents, please visit our website:
www.perkinelmer.com/invivoreagents

This product is sold for *in vivo* animal research use only and is not intended for any diagnostic use or procedures. Excluding purchases by authorized PerkinElmer distributors, this product is sold for use by the original purchaser and is not for resale. Unless otherwise agreed to in writing by PerkinElmer pursuant to a separate written agreement, no commercial use of this product is allowed. “Commercial use” means any and all uses of this product and/or its derivatives by a party for money or other consideration and may include without limitation: (1) product manufacture; (2) providing services, information or data to another party for remuneration; and/or (3) resale of the product or its derivatives, whether or not such product or derivatives are resold for use in research. Commercial use does not include the original purchaser providing the product to its contractor solely for use on the original purchaser’s research; provided that all product materials are returned to the original purchaser and/or destroyed by the contractor upon completion of such project.