

## IVISbrite™ PC3 Red F-luc Bioluminescent Tumor Cell Line

Product Number: BW128444

### Material Provided

Cells: 2 x 1 mL frozen aliquots (BW128444V)

Format: 1.0 x 10<sup>6</sup> cells / mL in 95% FBS, 5% DMSO

DESIGNATION	PC3 Red F-luc
Tissue	Human: Prostate; Adenocarcinoma
Source of Parental Line	ATCC (CRL-1435)
Gene Transfer Vehicle	Red F-luc-Puro 3d generation lentivirus
Bioluminescence In Vitro	At least 30,000 photons/cell/sec. Exact number will vary depending on imaging and culturing conditions.
Recommended Media and FBS	Eagle's MEM ATCC Cat. No. 30-2003 Supplement above with 10% Hyclone Fetal Bovine Serum (FBS) GE HealthCare Cat. No. SH30071.
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.



## The Features

Revvity 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 Revvity 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

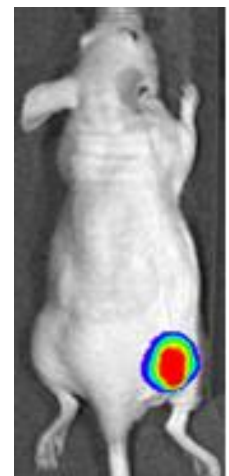
Cell may undergo genotypic changes resulting in reduced responsiveness over time in normal cell culture conditions. Genetic instability is a biological phenomenon that occurs in all stably transfected cells. Therefore, it is recommended to prepare an adequate number of frozen stock at early passages.

### Product Warranty

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

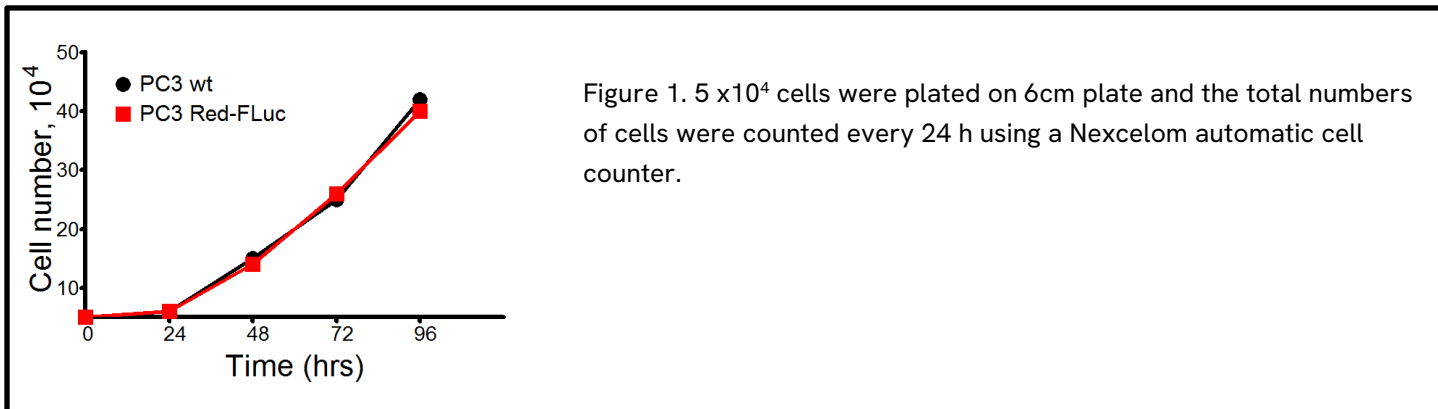
### Human Prostate Cancer Cell Line: PC-3 Red F-luc

PC-3 Red F-luc is a luciferase expressing cell line which was stably transfected with firefly luciferase gene from *Luciola Italica* (Red F-luc). The cell line was established by transducing lentivirus containing Red F-luc luciferase gene 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.

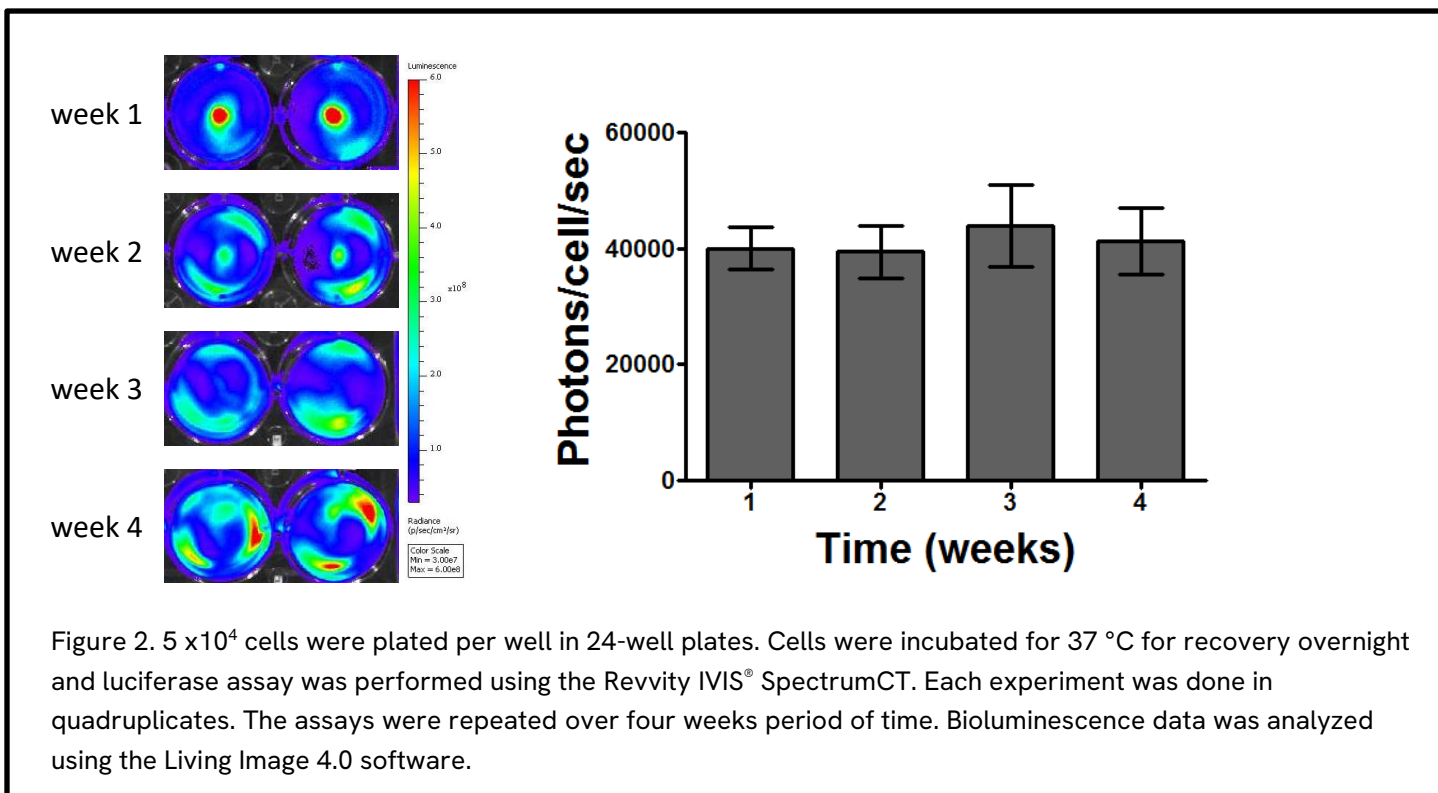


*Bioluminescence image  
of PC3 Red F-luc  
subcutaneous tumor*

### Growth Curve of PC3 Red F-luc Cells



### In Vitro BLI Signal Stability



## Subcutaneous Tumor Growth in a Nu/nu Mouse

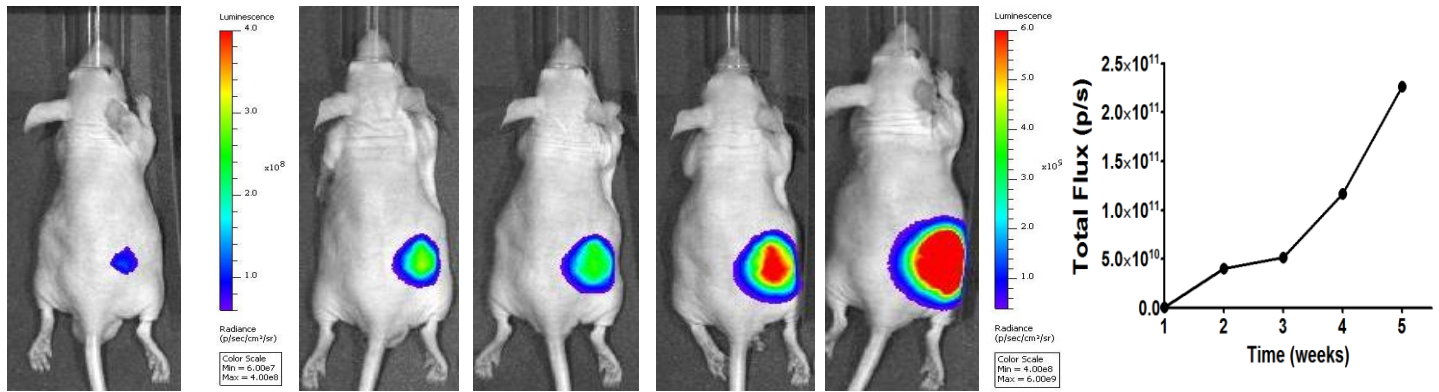


Figure 3.  $3 \times 10^6$  PC3 Red F-luc cells were injected subcutaneously into the dorsal region near the thigh of female nu/nu mouse. Tumor growth was monitored for luciferase expression using the Revvity IVIS<sup>®</sup> Spectrum at various time points. For luciferase expression, mice were imaged 10 minutes post i.p. injection of Luciferin at 150mg/kg at various time points. The image above shows tumor growth from representative mouse.

## Tumor Growth Comparison Between Wild Type and Red F-luc Cells

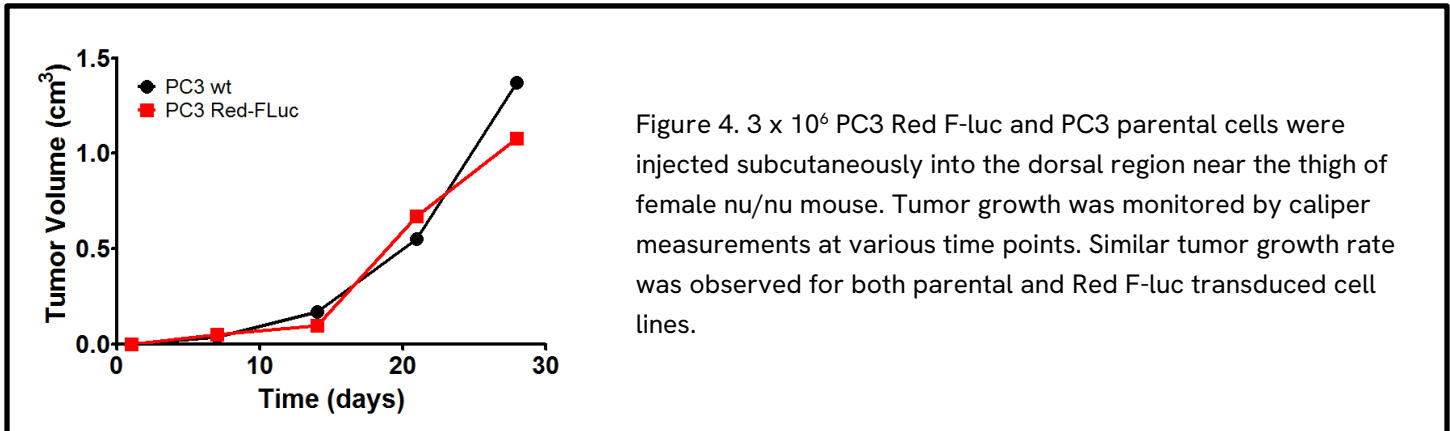


Figure 4.  $3 \times 10^6$  PC3 Red F-luc and PC3 parental cells were injected subcutaneously into the dorsal region near the thigh of female nu/nu mouse. Tumor growth was monitored by caliper measurements at various time points. Similar tumor growth rate was observed for both parental and Red F-luc transduced cell lines.

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