**Bioware® Brite Cell Line GL261 Red-FLuc**

Product No.: BW134246

We recommend using this line in Nude and SCID mouse models. An immune response may occur in C57BL/6 mice.

Material Provided

**Cells:** 2 x 1 mL frozen aliquots (BW134246V)

**Format:** 1.0 x 10^6 cells / mL in 95% FBS, 5% DMSO

<table>
<thead>
<tr>
<th>DESIGNATION</th>
<th>GL261 Red-FLuc</th>
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<tbody>
<tr>
<td>Tissue</td>
<td>Mouse: glioma</td>
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<td>Gene Transfer Vehicle</td>
<td>Red-FLuc-Puro 3d generation lentivirus</td>
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<tr>
<td>Bioluminescence In Vitro</td>
<td>At least 15,000 photons/cell/sec. Exact number will vary depending on imaging</td>
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<td>Recommended Media</td>
<td>DMEM ATCC Cat. No. 30-2002. Supplement the above with 10% Fetal Bovine Serum (FBS).</td>
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<td>Recommended Storage Conditions</td>
<td>Remove frozen cells from dry ice packaging and immediately place cells at a tempera</td>
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<tr>
<td>Average Doubling Time</td>
<td>26 hours</td>
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<td>Other Recommendations</td>
<td>When initially thawing, use T25 flask or 10cm plate. Cells should be ready to expand within 2-5 days. Antibiotics can be used in the media if desired after the initial thaw. (puromycin at 2ug/mL).</td>
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Refer to Cell Culture Guidelines for more detailed instructions.

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

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The Features

Perkin Elmer Bioware® Brite 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 Perkin Elmer 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 Glioma Cancer Cell Line: GL261 Red-FLuc

GL261 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.
**Growth Curve of GL261 Red-FLuc Cells**

**Figure 1.** 5 x 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.

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**In Vitro BLI Signal Stability**

**Figure 2.** 5 x 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

Figure 3. $1 \times 10^6$ GL261 Red-FLuc 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 PerkinElmer IVIS® Spectrum at various time points. 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 a representative mouse.

Tumor Growth Comparison Between Wild Type and Red-FLuc Cells

Figure 4. $1 \times 10^6$ GL261 Red-FLuc and GL261 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-FLuc transduced cell lines.

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

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