Bioware Ultra Cell Line B16-F10-luc2

The Features
Caliper Life Sciences Bioware Ultra Cell Line Models Offer 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 Caliper Life Sciences 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.

Mouse Melanoma Cancer Cell Line: B16-F10-luc2
B16-F10-luc2 is a luciferase expressing cell line which was stably transfected with firefly luciferase gene (luc2). The cell line was established by transducing lentivirus containing luciferase 2 gene under the control of human ubiquitin C promoter. This cell line can be used in vivo to establish:
- Subcutaneous tumor models
- Experimental metastasis models (intravenous)

General Information

<table>
<thead>
<tr>
<th>DESIGNATION</th>
<th>B16-F10-luc2</th>
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<tbody>
<tr>
<td>Tissue</td>
<td>Mouse Melanoma</td>
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<tr>
<td>Source of Parental Line</td>
<td>National Cancer Institute</td>
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<tr>
<td>Gene Transfer Vehicle</td>
<td>pGL4.4 luc2 Lentivirus</td>
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<tr>
<td>Bioluminescence In Vitro</td>
<td>Approximately 450 photons/sec/cell</td>
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<td>Exact number will vary, depending on imaging and culturing conditions.</td>
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<td>Recommended Media</td>
<td>RPMI 1640 (ATCC Catalog No. 30-2001) Supplemented with Heat inactivated FBS at final concentration 10%</td>
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<tr>
<td>Cell Doubling Time</td>
<td>16 hr</td>
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<tr>
<td>Other Recommendations</td>
<td>When initially thawing, use T25 flask. Cells should be ready to expand next day. We recommend not using any antibiotics in the media.</td>
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In Vitro Bioluminescence of B16-F10-luc2

Week 3 Luciferase expression

Figure 1. 5 x 10⁵ cells were plated per well in black-walled 24-well plates. Cells were incubated for 37°C for recovery overnight and luciferase assay was performed using an IVIS Spectrum. Each experiment was done in triplicates. Bioluminescence data was analyzed using the Living Image 3.0 software.

Growth Curve of B16-F10-luc2

Contact Information:
If you have any questions regarding these cell lines, please contact Caliper at 508-497-6592 or e-mail: reagents@caliperls.com

www.caliperLS.com

References:

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CELL LINE B16-F10-LUC2

**In Vitro Bioluminescence of B16-F10-luc2**

**Week 3 Luciferase expression**

Average photons/sec/cell: 455

![Image](image_url)

Figure 1. 5 x 10^5 cells were plated per well in black-walled 24-well plates. Cells were incubated for 37 ºC for recovery overnight and luciferase assay was performed using an IVIS Spectrum. Each experiment was done in quadruplicates. Bioluminescence data was analyzed using the Living Image 3.0 software.

**Contact Information:**
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**References**

**Growth Curve of B16-F10-luc2**

![Image](image_url)

Figure 2. 1 x 10^5 cells were plated on T25 flasks and the total numbers of cells were counted every 24 h using a Nexcelom automatic cell counter. Cell numbers were plotted in logarithmic scale. Proliferation rate was calculated using a previously reported formulation.

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