TECHNICAL BRIEF

Bioware and Bioware Ultra oncology cell lines

Ex vivo imaging protocol

Materials

- D-Luciferin, Firefly, potassium salt
- 24 well plates
- DPBS, w/o Mg^{2+} and Ca^{2+}
- Syringe filter, 0.2um

Procedure

1. Prepare the following two concentrations of luciferin in DPBS and filter sterilize with a 0.2 µm filter:
   15 mg/ml for injection *in vivo* prior to euthanasia
   300 µg/ml for imaging *ex vivo* tissues
2. Just prior to euthanasia, mice are injected at 150mg/kg with the 15 mg/ml stock of luciferin.
3. Immediately after necropsy, tissues of interest are placed individually into wells of a 24-well plate.
4. Add enough luciferin (300 µg/mL) to cover the tissues.
5. Tissues are imaged initially at 1 minute, 10 bin, level B. Image times and binning can then be adjusted accordingly.
6. Tissues can then be fixed in 10% formalin and H&E stained for histology.

Notes

- False positives can be seen when there is carryover of signal from bright tissues to negative tissues. This carry over may occur when bright tissues happen to be placed in wells adjacent to negative tissues. In this case, the bright tissue can be removed from the plate and the remaining tissues re-imaged.
- It is helpful to separate the lobes of the lungs and liver and place them in separate wells as dim signals can be attenuated.
- It is important to try to image the tissues as soon as possible after they are removed from the animal to minimize tissue degradation.

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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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