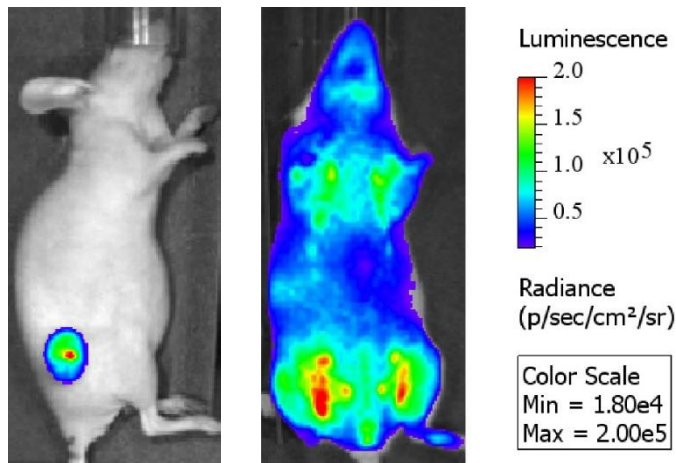


Caution: For Laboratory Use. A product for research purposes only.

Bioluminescent Glucose Luciferin

DESCRIPTION:

Glucose is a major source of energy for most living organisms, and its aberrant uptake is linked to many pathological conditions. Bioluminescent Glucose Luciferin (**BiGLuc**) is a recently developed bioluminescent glucose-uptake probe for real-time, non-invasive longitudinal imaging of glucose absorption both *in vitro* and *in vivo*. The sensitivity of BiGLuc probe is comparable with that of commonly used ^{18}F -FDG-positron-emission-tomography tracers. The probe was validated as a tool for the identification of new glucose transport inhibitors, enabling a wide range of applications in the fields of metabolism and drug development.



(A) Representative image of tumor bearing mouse injected BiGLuc imaging probe. The tumor cells were transduced with Luciferase expressing construct.

(B) Representative image transgenic mice expressing luciferase under beta-actin promoter (FVB+luc).

In both (A) and (B) the amount of light represents the level of glucose uptake

Technical
information

Caged Luciferin Imaging Reagent

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Bioluminescent Glucose Luciferin

CONTENTS:

Each “BiGluc” kit contains 1mL of **Solution A** and 2 ml of **Solution B** required for 10 mouse injections.

STORAGE:

Upon receipt, the kit should be stored at -80 °C. When stored and handled properly, the kit compounds are stable for six months.

PROTOCOL:



- 1) Inject 100 μ L of **Solution A** intravenously in luciferase expressing animals. Wait for 12-24 hrs.
- 2) Inject 200 μ L of **Solution B** intraperitoneally and immediately image the animals continuously for 30-60min with 2 min intervals.
- 3) The data for each animal should be calculated as the area under the curve over 30 - 60 min.

REFERENCES:

- 1) Maric T. et al. **Bioluminescent-based imaging and quantification of glucose uptake in vivo.** [Nat Methods](#). 2019 May 13. doi: 10.1038/s41592-019-0421-z

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