

IVISbrite™ D-Luciferin Potassium Salt Bioluminescent Substrate

Product Number: 122799-100mg

DESCRIPTION

D-Luciferin is a chemical substance found in the cells of organisms that generate bioluminescence. When luciferin is oxidized under the catalytic effects of firefly luciferase and ATP, light is produced. Luciferin is able to penetrate cell membranes and can be used to monitor activity of cells of interest *in vivo* that have been transformed to express luciferase. Because the reaction with luciferase is ATP-dependent, cellular viability can also be determined. Use IVISbrite D-Luciferin Potassium Salt Bioluminescent Substrate with confidence in your *in vivo* and *in vitro* studies. *

Property	Specification
Color and Form	Nearly white powder
Molecular Formula	C ₁₁ H ₇ KN ₂ O ₃ S ₂
Molecular Weight	318.41 g/mol
CAS#	115144-35-9
Solubility	Up to 40 mg/mL in H ₂ O and Phosphate Buffered Saline
Purity	>99% by HPLC
Vial	Amber 5 mL vial filled under argon gas
Volume per vial	100 mg D-Luciferin
Shipping Condition	Shipped on blue ice

STORAGE & HANDLING

- Upon receipt, IVISbrite D-Luciferin should be stored at -20°C and protected from air and light.
- When stored and handled properly, an unopened vial of lyophilized D-Luciferin is stable for up to 2 years.
- Luciferin is a light-sensitive reagent, and should be kept out of direct light as much as possible. We recommend that the luciferin be protected from light (e.g. covered with a light blocking material such as tin foil) during use, from solution preparation until completion of the procedure.
- Repeated freeze thaw is not recommended.

PREPARATION FOR USE

To prepare Luciferin for *in vivo* use, add 3.33 mL of DPBS to vial.*
Mix gently by inversion until Luciferin is completely dissolved.

Dose amount should be determined at 150 mg/kg, with a dose volume of 5 mL/kg for mice and 10 mL/kg for rats.
Filter sterilize through a 0.2 µm filter.

Inject Luciferin intra-peritoneally (i.p.) or subcutaneously (s.c.) 10-15 minutes before *in vivo* imaging, or as determined by kinetic curve.**

* Immediate use after dilution is strongly recommended. If necessary, luciferin solutions may be stored at 4°C for 1 week or at -20°C for 6 months. However, prolonged storage at either temperature may result in degradation of signal.

** A Luciferin kinetic curve should be performed for each new animal model to determine peak signal time. Please see our 'Determining the Luciferin Kinetic Curve for Your Model' instruction sheet available for download on our website.