Brite-Light™ D-Luciferin, Potassium Salt

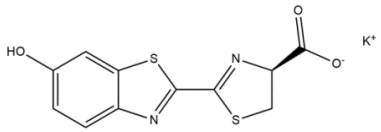
rev 06/19

ALTERNATE NAMES: D- Luciferin Potassium salt, potassium,(4S)-2-(6-hydroxy-1,3-benzothiazol-2-yl)-4,5-dihydro-1,3-thiazole-4-carboxylate, D-Luciferin Firefly, potassium salt

CATALOG #:

B3000-1G	1 g
B3000-5PK	5 x 1 g
B3000-10PK	10 x 1 g

STRUCTURE:



MOLECULAR FORMULA: $C_{11}H_7KN_2O_3S_2$

MOLECULAR WEIGHT: 318.41

CAS NUMBER: 115144-35-9

APPEARANCE: Crystalline solid

PURITY: ≥99.8%

SOLUBILITY: ~40 mg/ml in Water

DESCRIPTION: Luciferin is a substrate for luciferase. It is oxidized by luciferase to generate light in the presence of ATP. Luciferase is used as a reporter gene linked to a promoter of interest. Luciferin is used to assess the expression of the luciferase gene. It is also used to assess ATP availability in cellular or biochemical assays. *Note: Provided in an amber serum vial with a rubber septum & crimp cap for user convenience.*

STORAGE TEMPERATURE: -20ºC. Protect from air. Store in the dark. Product is light sensitive.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

ASSAY PROTOCOL:

Preparation of D-Luciferin Stock:
Prepare a Luciferin stock solution (30 mg/ml) in PBS. Mix gently until luciferin is completely dissolved. Alternatively use premade EZSolution™ of luciferin (Cat. No. B3001). Stock solutions can be stored in -20°C.

Preparation of 1X D-Luciferin Working Solution:
Dilute the stock of D-Luciferin (1: 200) in pre-warmed tissue culture media to give a final concentration of 150 µg/ml of working solution of 1X luciferin. Working solution should be used immediately. If necessary, working solution can be stored at 4°C for 3 weeks.

Procedure:

1. Adherent cells should be seeded in a cell culture plate overnight to allow the cells to attach to the bottom. Suspension cell lines can be seeded in the working solution in the plate for direct incubation and imaging. If doubling time is relatively short, doubling time should be taken into consideration for cell counting. 96 well plates suitable for bioluminescence should be used for plate readers.
2. Gently aspirate media from culture cells.
3. Add 1X Luciferin to cells just prior to imaging. Incubating the cells for a short time at 37°C can increase the signal, before imaging. Incubation time is dependent on the specific cell type. Generally, 10 min incubation is sufficient.
4. Check the *in vitro* bioluminescence using any compatible imaging system every 10 min, upto 40 min to determine the kinetic curve and find the peak imaging time point for each cell type.
5. Bioluminescence can also be followed using plate readers equipped to read bioluminescence.

RELATED PRODUCTS:

StayBrite™ Highly Stable Luciferase/Luciferin Reagent (Cat. No. K790)
D-Luciferin, Sodium Salt (Cat. No. 7902)
D-Luciferin, Potassium Salt (Cat. No. 7903)
D-Luciferin (Free acid) (Cat. No. 2779)
EZSolution™ D-Luciferin, Potassium Salt (Cat. No. B3001)
Coelenterazine-h (Cat. No. 2742)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***