EZSolution™ D-Luciferin, Potassium Salt

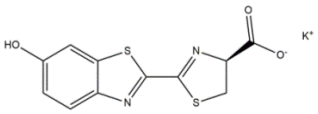
rev 06/19

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 #: B3001-set

AMOUNT: 10 x 850 µl

STRUCTURE:



MOLECULAR FORMULA: $C_{11}H_7KN_2O_3S_2$

MOLECULAR WEIGHT: 318.41

CAS NUMBER: 115144-35-9

APPEARANCE: Yellow colored solution

FORMULATION: In PBS to a final concentration of 30 mg/ml

PURITY: ≥99.8%

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 and ATP availability in cellular or biochemical assays.

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 1X D-Luciferin Working Solution:

Dilute the stock EZSolution™ D-Luciferin, Potassium Salt (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, up to 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:

D-Luciferin, Sodium Salt (Cat. No. 7902)
StayBrite™ Highly Stable Luciferase/Luciferin Reagent (Cat. No. K790)
D-Luciferin (Free acid) (Cat. No. 2779)
D-Luciferin, Potassium Salt (Cat. No. 7903)
Brite-Light™ D-Luciferin, Potassium Salt (Cat. No. B3000)

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