

D-Luciferin potassium

Chemical Properties

CAS No. : 115144-35-9

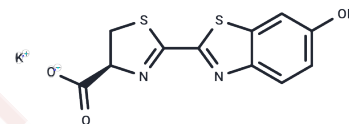
Formula: C₁₁H₇KN₂O₃S₂

Molecular Weight: 318.41

Storage:

Store at low temperature, Store under nitrogen, Keep away from direct sunlight, Keep away from moisture
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	D-Luciferin potassium (D-Luciferin K Salt) is a popular bioluminescent substrate of luciferase in the presence of ATP.
Targets(IC50)	Others
In vitro	<p>METHODS: Preparation of D-Luciferin potassium for in vitro bioluminescence analysis:</p> <ol style="list-style-type: none"> 1. Prepare 200× D-Luciferin reserve solution (30 mg/mL) with sterile water and mix gently until all dissolved. It can be used immediately after preparation or stored at -20°C. 2. Prepare 1× D-Luciferin (150 µg/mL) working solution in preheated tissue culture medium. 3. Aspirate the medium from the cultured cells. 4. Add 1× D-Luciferin solution to the cells before imaging. Incubate the cells at 37°C for a short period of time before imaging to increase signal.
In vivo	<p>METHODS: Preparation of D-Luciferin potassium for in vivo bioluminescence analysis:</p> <ol style="list-style-type: none"> 1. Prepare a fresh 15 mg/mL D-Luciferin stock solution in DPBS. Sterilize by filtering with 0.20 µm filter. 2. Inject 10 µL/g of mouse body weight. 150 mg D-Luciferin/kg body weight per mouse. For example, for a mouse weighing 10 g, inject 100 µL to provide 1.5 mg D-Luciferin. 3. inject D-Luciferin intraperitoneally 10-15 min prior to imaging. fluorescein kinetic studies should be performed for eah animal model to determine peak signal times.
Kinase Assay	Enolase activity assay is in the 2.0 mM MgSO ₄ and 400 mM KCl in the absence or presence of ENOblock or NaF, at 37°C by incubating pure enolase (3-9 U) in a buffer containing 50 mM imidazole-HCl (pH 6.8). The reaction is initiated by adding 1 µmol of 2-phospho-D-glycerate, and the OD is measured after 10 min of reaction time with a spectrophotometer at 240 nm.

Solubility Information

Solubility	<p>DMSO: 5 mg/mL (15.7 mM), Sonication is recommended. H₂O: 31.25 mg/mL (98.14 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)</p>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1406 mL	15.703 mL	31.406 mL
5 mM	0.6281 mL	3.1406 mL	6.2812 mL
10 mM	0.3141 mL	1.5703 mL	3.1406 mL
50 mM	0.0628 mL	0.3141 mL	0.6281 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hauber R, et al. J Clin Chem Clin Biochem. 1987, 25(8), 511-514.

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