

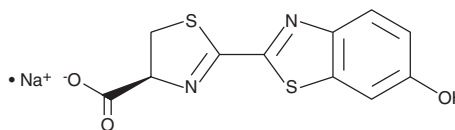
# PRODUCT INFORMATION



## D-Luciferin (sodium salt)

Item No. 14682

**CAS Registry No.:** 103404-75-7  
**Formal Name:** 4,5-dihydro-2-(6-hydroxy-2-benzothiazolyl)-4S-thiazolecarboxylic acid, monosodium salt  
**MF:** C<sub>11</sub>H<sub>7</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub> • Na  
**FW:** 302.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 269, 327 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

D-Luciferin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the D-luciferin (sodium salt) in the solvent of choice. D-Luciferin (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of D-luciferin (sodium salt) in these solvents is approximately 0.25, 10, and 16.7 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of D-luciferin (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-luciferin (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

D-Luciferin is a chemiluminescent substrate of firefly luciferase.<sup>1</sup> It produces light upon oxidative decarboxylation by luciferase in the presence of ATP. D-Luciferin can be employed to assay the expression of the luciferase gene linked to a promoter of interest. Alternatively, D-luciferin and luciferase can be used to assess ATP availability in cellular or biochemical assays.

### Reference

1. Lember, N. Firefly luciferase can use L-luciferin to produce light. *Biochem. J.* **317**(1), 273-277 (1996).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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