

9620 Medical Center Drive, Suite 101 Rockville, MD 20850, USA

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## **D-Luciferin**

Catalog Number	Product Name	Packaging Size
C292A	D-Luciferin, free acid	10 mg
C292B	D-Luciferin, free acid	25 mg
C292C	D-Luciferin, free acid	100 mg
C293A	D-Luciferin, potassium salt	10 mg
C293B	D-Luciferin, potassium salt	25 mg
C293C	D-Luciferin, potassium salt	100 mg
C294A	D-Luciferin, sodium salt	10 mg
C294B	D-Luciferin, sodium salt	25 mg
C294C	D-Luciferin, sodium salt	100 mg

Storage upon receipt: -20°C, protected from light

## Introduction

**Luciferins** are a class of ATP-dependent substrates that are oxidized in the presence of the enzyme luciferase to produce oxyluciferin and energy in the form of light. Luciferin undergoes an enzyme-catalysed oxidation and the resulting unstable reaction intermediate emits light upon decaying to its ground state. This system is employed as a very useful reporter in plants, bacteria, and mammalian cells. Because chemiluminescent techniques are virtually background-free, this reporter gene system is ideal for detecting low-level gene expression.

HO S N S CO<sub>2</sub>H Luciferase HO S N S 
$$+$$
 Live AMP + PPi O<sub>2</sub> CO<sub>2</sub>

## **Specifications**

Product Name:	D-Luciferin, free acid	D-Luciferin, potassium salt	D-Luciferin, sodium salt
Molecular Formula:	$C_{11}H_8N_2O_3S_2$	$C_{11}H_7KN_2O_3S_2$	$C_{11}H_7N_2NaO_3S_2$
Molecular Weight:	280.32	318.40	302.30
CAS Number:	2951-17-5	15144-35-9	103404-75-7
Storage Conditions:	-20 °C, protected from light	-20 °C, protected from light	-20 °C, protected from light
Shipping Condition:	Room Temperature	Room Temperature	Room Temperature
Structure:	HO S N N N N C-OH	HO S S S S S S S S S S S S S S S S S S S	HO S N N N N N N N N N N N N N N N N N N

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## References:

 Bacterial and Firefly Luciferase Genes in Transgenic Plants, Advantages and Disadvantages of a Reporter Gene.

Koncz C, et al.

Dev Genet (1990) 11:224-224

2. Investigation of the Interaction between Firefly Luciferase and Oxyluciferin or Its Analogues by Steady State and Subnanosecond Time-Resolved Fluorescence. Investigation of the Interaction between Firefly Luciferase and Oxyluciferin or Its Analogues by Steady State and Subnanosecond Time-Resolved Fluorescence.

Gandelman OA, et al.

J Photochem Photobiol B (1994) 22:203-203

3. ATP Determination with Firefly Luciferase.ATP Determination with Firefly Luciferase.

J Appl Biochem (1981) 3:473-473