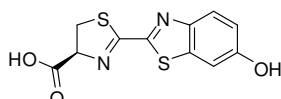




## Certificate of Analysis

**Axon Catalogue ID:** 2494 **Batch Number:** 1  
**Product Name:** D-Luciferin  
**Alternative Name(s):** Firefly Luciferin  
**IUPAC Name:** (S)-2-(6-Hydroxybenzo[d]thiazol-2-yl)-4,5-dihydrothiazole-4-carboxylic acid

**Structure:**



**Amount:**

**CAS number(s):** 2591-17-5  
**Molecular Formula:** C<sub>11</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub> **Molecular Weight:** 280.32  
**Batch Molecular Formula:** C<sub>11</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub>S<sub>2</sub> **Batch Molecular Weight:** 280.32  
**Appearance:** Off-white solid **Observed mp:** >200 °C (decomp)  
**TLC (R<sub>f</sub>):** 0.56 DCM/MeOH/NH<sub>3</sub> (9:1:0.1)  
**Chemical Purity:** 98.4%  
**Optical Purity (ee):** N.A.  
**<sup>1</sup>H-NMR:** Analytical data confirm chemical structure  
**Mass Spec:** Analytical data confirm chemical structure  
**Microanalysis:** Calculated: C 47.13, H 2.88, N 9.99; Found: C 46.70, H 2.88, N 9.85  
**Storage Conditions:** Store at +4 °C

<b>Solubility Data:</b>	<b>Solvent</b>	<b>Solubility (mg/ml)</b>	<b>Solubility (mM)</b>	<b>Remarks</b>
	Water			Not Tested
	0.1N NaOH (aq)	28.0	>100 mM	
	0.1N HCl (aq)			Not Tested
	DMSO	28.0	>100 mM	
	EtOH			Not Tested

**Remarks:**

**QC Date:** 18-03-2021

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to [info@axonmedchem.com](mailto:info@axonmedchem.com) indicating Catalogue ID and Batch number.

**Caution: Not fully tested. For research purposes only**