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## DATASHEET

### D-Luciferin sodium salt

#### Product overview

<b>Name</b>	D-Luciferin sodium salt
<b>Cat No</b>	HB5119
<b>Biological description</b>	D-luciferin sodium salt is a water-soluble chemiluminescent luciferase substrate which is commonly used for in vivo imaging of the expression of luciferase. It is also frequently used in vitro.  The compound is nontoxic and stable in cells and live animals.  The luciferin substrate can be oxidized by the luciferase enzyme to generate an excited state molecule that emits light.
<b>Biological action</b>	Substrate
<b>Purity</b>	>98%
<b>Description</b>	Chemiluminescent luciferase substrate

#### Images



#### Solubility & Handling

<b>Storage instructions</b>	-20 °C
<b>Solubility overview</b>	Soluble in water (100 mM), and in DMSO (100 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

#### Chemical Data

<b>Chemical name</b>	(4S)-4,5-Dihydro-2-(6-hydroxy-2-benzothiazolyl)-4-thiazolecarboxylic acid sodium salt
<b>Molecular Weight</b>	302.3
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>11</sub> H <sub>7</sub> N <sub>2</sub> NaO <sub>3</sub> S <sub>2</sub>
<b>CAS Number</b>	103404-75-7
<b>PubChem identifier</b>	5702588
<b>SMILES</b>	C1[C@@H](N/C(=C\N=C3C=CC(=O)C=C3S2)/S1)C(=O)[O-].[Na+]
<b>InChIKey</b>	BZNVUYVALNTPBG-WJCSTRGMSA-M
<b>MDL number</b>	MFCD00044938

## References

**Dynamic bioluminescence imaging for quantitative tumour burden assessment using IV or IP administration of D: -luciferin: effect on intensity, time kinetics and repeatability of photon emission.**

Keyaerts et al (2008) Eur J Nucl Med Mol Imaging. 35(5)

**PubMedID** [18180921](#)

**Beyond D-luciferin: expanding the scope of bioluminescence imaging in vivo.**

Adams et al (2014) Curr Opin Chem Biol 21

**PubMedID** [25078002](#)

**Biosynthesis-inspired deracemizative production of d-luciferin by combining luciferase and thioesterase.**

Maeda et al (2017) Biochim Biophys Acta Gen Sub 1861(8)

**PubMedID** [28454735](#)

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