Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

D-Luciferin sodium salt

Product overview

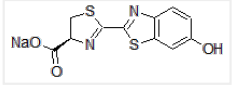
Name	D-Luciferin sodium salt
Cat No	HB5119
Biological description	D-luciferin sodium salt is a water-soluble chemiluminescent luciferase substrate which is commonly used for in vivo imaging of the expression of luciferase. It is also frequently used in vitro. The compound is nontoxic and stable in cells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

Images

Solubility & Handling

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

Chemical Data

Chemical name	(4S)-4,5-Dihydro-2-(6-hydroxy-2-benzothiazolyl)-4-thiazolecarboxylic acid sodium salt
Molecular Weight	302.3
Chemical structure	
Molecular Formula	$C_{11}H_7N_2NaO_3S_2$
CAS Number	103404-75-7
PubChem identifier	5702588
SMILES	C1[C@@H](N/C(=C\2/N=C3C=CC(=O)C=C3S2)/S1)C(=O)[O-].[Na+]
InChiKey	BZNVUYVALNTPBG-WJCSTRGMSA-M
MDL number	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
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Maeda et al (2017) Biochim Biophys Acta Gen Sub 1861(8)
PubMedID 28454735