

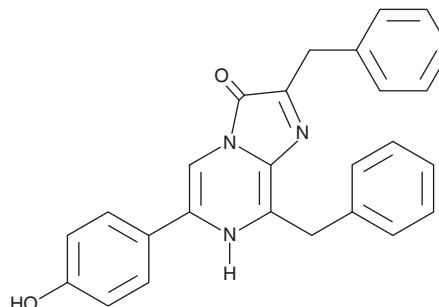
# PRODUCT INFORMATION



## Coelenterazine h

Item No. 16894

**CAS Registry No.:** 50909-86-9  
**Formal Name:** 6-(4-hydroxyphenyl)-2,8-bis(phenylmethyl)-imidazo[1,2-a]pyrazin-3(7H)-one  
**Synonyms:** 2-deoxy Coelenterazine, Luciferin (Renilla)  
**MF:** C<sub>26</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 407.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 260, 345, 439 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



**Special Conditions:** Do not dissolve in DMSO, may oxidize

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

### Laboratory Procedures

Coelenterazine h is supplied as a crystalline solid. A stock solution may be made by dissolving the coelenterazine h in the solvent of choice, which should be purged with an inert gas. Coelenterazine h is soluble in organic solvents such as ethanol and methanol. The solubility of coelenterazine h in these solvents is approximately 0.5 mg/ml.

### Description

Coelenterazine (Item No. 16123) is a luciferin, a light-emitting biomolecule that serves as a substrate for luciferases or as a constituent of photoproteins, including aequorin.<sup>1</sup> Coelenterazine can be used to reconstitute the aequorin complex both *in vivo* and *in vitro*, emitting blue light when bound to calcium ions. Coelenterazine h is a synthetic derivative of native coelenterazine that exhibits 16-fold higher luminescence intensity (emission maximum ~466 nm; half-total time of 0.6-1.2 sec) than native coelenterazine.<sup>2</sup> Aequorin complexes reconstituted with coelenterazine h are reported to be more sensitive to calcium ions than those employing the native constituent, providing a useful indicator for small changes in Ca<sup>2+</sup> concentrations.<sup>3</sup>

### References

1. Sabnis, R.W. *Handbook of biological dyes and stains: Synthesis and industrial applications*. 1<sup>st</sup> edition, John Wiley & Sons, Inc., Madison, NJ (2010).
2. Teranishi, K. and Shimomura, O. Coelenterazine analogs as chemiluminescent probe for superoxide anion. *Anal. Biochem.* **249(1)**, 37-43 (1997).
3. Shimomura, O., Kishi, Y., and Inouye, S. The relative rate of aequorin regeneration from apoaequorin and coelenterazine analogues. *Biochem. J.* **296(Pt 3)**, 549-551 (1993).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/02/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM