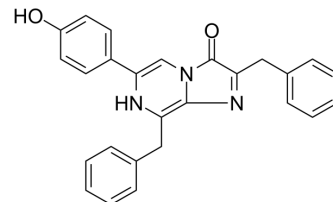


Coelenterazine h

Cat. No.:	HY-D1024
CAS No.:	50909-86-9
Molecular Formula:	C ₂₆ H ₂₁ N ₃ O ₂
Molecular Weight:	407.46
Target:	Biochemical Assay Reagents; Calcium Channel
Pathway:	Others; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture and light * The compound is unstable in solutions, freshly prepared is recommended.



BIOLOGICAL ACTIVITY

Description	Coelenterazine h (2-Deoxycoelenterazine), a coelenterazine derivative, is a luminescent substrate for RLuc8. Coelenterazine h is more sensitive to Ca ²⁺ , thus providing a valuable tool for measuring small changes in Ca ²⁺ concentrations ^{[1][2][3][4]} .
In Vitro	Coelenterazine h (1-10 μM) can be used as the luminescent substrate for RLuc8 ^[4] . In the measurements of Ca ²⁺ binding kinetics of BRAC, emission intensity of Venus (530 nm) from BRAC are monitored at 1 kHz just after rapid mixing of 5 nM BRAC protein with 20 μM coelenterazine-h in various concentration of Ca ²⁺ buffer ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Biol Chem. 2023 Dec 1:105527.
- Stress Biol. 2024 Feb 16;4(1):14.

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REFERENCES

- [1]. Jiang T, et al. New bioluminescent coelenterazine derivatives with various C-6 substitutions. *Org Biomol Chem*. 2017 Aug 23;15(33):7008-7018.
- [2]. M R Knight, et al. Imaging calcium dynamics in living plants using semi-synthetic recombinant aequorins. *J Cell Biol*. 1993 Apr;121(1):83-90.
- [3]. Kazushi Suzuki, et al. Five colour variants of bright luminescent protein for real-time multicolour bioimaging. *Nat Commun*. 2016 Dec 14;7:13718.
- [4]. Kenta Saito, et al. Auto-luminescent genetically-encoded ratiometric indicator for real-time Ca²⁺ imaging at the single cell level. *PLoS One*. 2010 Apr 1;5(4):e9935.

Caution: Product has not been fully validated for medical applications. For research use only.

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