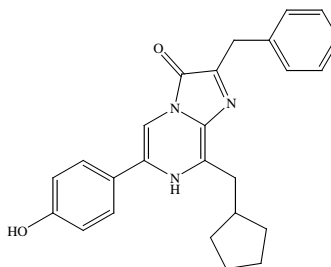


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: Coelenterazine *hcp***CATALOG #:** 10113/10113-1/10113-2**MOLECULAR INFORMATION:** C₂₅H₂₅N₃O₂
Mwt: 399.49**PROPERTIES:**

Color & Form	Yellow solid
Purity	≥ 97% by HPLC
Solubility	Soluble in MeOH or EtOH, AVOID DMSO
Absorption	430 nm
Emission Maxima	444 nm
Extinction Coefficient	10,000 (MeOH)

STORAGE AND HANDLING:

Solution is susceptible to oxidation by air. For best results, keep solution from light and store at < -70°C under nitrogen or argon. Keep solid at -20 °C or -70 °C and protect from light under nitrogen or argon for long-term storage. Keep calcium free when stored in solution (avoid using glass container).

APPLICATION:

Coelenterazine *hcp* is a synthetic derivative of coelenterazine. Its luminescence intensity is 190 times higher than that of native coelenterazine while its response time to calcium is faster than that of the latter.

Coelenterazine is membrane permeable, and can be used to facilitate the reassembling of the aequorin complex *in vivo*.

Use methanol or ethanol to prepare the stock solution. **DO NOT** use DMSO (dimethylsulfoxide), as coelenterazine may be unstable in this solvent.

The molar extinction coefficient can be used to determine the concentration of a coelenterazine stock solution. In aqueous solution, the extinction coefficient is 10,000.

Biotium also offers a number of other coelenterazine analogs. The luminescent properties of these analogs are listed in the table below.

Ref: 1) *Biochem. J.* **261**, 913(1989); 2) *Cell Calcium* **12**, 635(1991); 3) *Cell Calcium*, **14**, 373 (1993); 4) *Mol Imaging*, **3** (1), 43(2004 Jan)

Luminescent Properties of Coelenterazine Products*

Cat. #	Coelenterazine Product	Emission Maximum (nm)	Relative Luminescence capacity	Relative Intensity	Half-rise Time (s)
10110	native	466	1.00	1.00	0.4-0.8
10112	<i>cp</i>	442	0.95	15	0.15-0.3
10114	<i>f</i>	473	0.80	18	0.4-0.8
10117	<i>fcf</i>	452	0.57	135	0.4-0.8
10111	<i>h</i>	466	0.82	10	0.4-0.8
10113	<i>hcp</i>	444	0.67	190	0.15-0.3
10121	<i>i</i>	476	0.70	0.03	8
10116	<i>ip</i>	441	0.54	47	1
10115	<i>n</i>	467	0.26	0.01	5
10122	<i>methyl</i>	Used as a strong nontoxic antioxidant for free radical and apoptosis research.			

* All data from *Biochem. J.* **261**, 913(1989)

Luminescent Properties of Coelenterazine Analogs with *Renilla* Luciferase*

Cat. #	Coelenterazine Product	Emission Maximum (nm)	Total Light (%)	Initial Intensity (%)
10110	native	475	100	100
10112	<i>cp</i>	470	23	16
10124	<i>e</i>	418 and 475	137	750
10114	<i>f</i>	473	28	58
10111	<i>h</i>	475	41	57
10115	<i>n</i>	475	47	68

* All data from *Biochem. Biophys. Res. Commun.* **233**, 349(1997).

TOXICITY: Unknown

FIRST AID: Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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