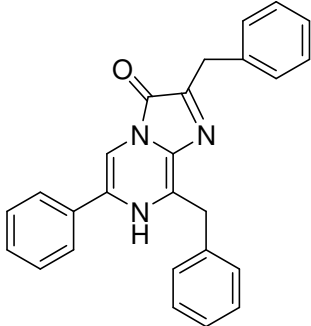


### Instruction Manual

Catalog Number	PK-CA707-10125
Description	Coelenterazine 400a, also called DeepBlue C, is a coelenterazine derivative that serves as a substrate for Renilla luciferase (Rluc) and generates an emission peak centered around 400 nm. It is the best Rluc substrate for BRET studies because it has minimal interference with the emission of the GFP acceptor. For BRET application, we recommend Dulbecco's Phosphate Buffered Saline (D-PBS) containing CaCl <sub>2</sub> (0.1 g/l), MgCl <sub>2</sub> (6H <sub>2</sub> O (0.1 g/l) and D-Glucose (1 g/l) supplemented with Aprotinin (2 µg/ml). Prepare a 20-fold (50 µM) dilution of the stock solution with the recommended buffer.
Quantity	50 µg
Excitation / Emission Maxima	The bioluminescence is centered around 400 nm.
Molecular Structure	 <p>The chemical structure of Coelenterazine 400a is a benzimidazole derivative. It features a central benzimidazole ring system. The 2-position of the benzimidazole ring is substituted with a benzyl group. The 4-position is substituted with a benzyl group. The 5-position is substituted with a benzyl group. The 6-position is substituted with a benzyl group. The 7-position is substituted with a benzyl group. The 8-position is substituted with a benzyl group. The 9-position is substituted with a benzyl group. The 10-position is substituted with a benzyl group. The 11-position is substituted with a benzyl group. The 12-position is substituted with a benzyl group. The 13-position is substituted with a benzyl group. The 14-position is substituted with a benzyl group. The 15-position is substituted with a benzyl group. The 16-position is substituted with a benzyl group. The 17-position is substituted with a benzyl group. The 18-position is substituted with a benzyl group. The 19-position is substituted with a benzyl group. The 20-position is substituted with a benzyl group. The 21-position is substituted with a benzyl group. The 22-position is substituted with a benzyl group. The 23-position is substituted with a benzyl group. The 24-position is substituted with a benzyl group. The 25-position is substituted with a benzyl group. The 26-position is substituted with a benzyl group. The 27-position is substituted with a benzyl group. The 28-position is substituted with a benzyl group. The 29-position is substituted with a benzyl group. The 30-position is substituted with a benzyl group. The 31-position is substituted with a benzyl group. The 32-position is substituted with a benzyl group. The 33-position is substituted with a benzyl group. The 34-position is substituted with a benzyl group. The 35-position is substituted with a benzyl group. The 36-position is substituted with a benzyl group. The 37-position is substituted with a benzyl group. The 38-position is substituted with a benzyl group. The 39-position is substituted with a benzyl group. The 40-position is substituted with a benzyl group. The 41-position is substituted with a benzyl group. The 42-position is substituted with a benzyl group. The 43-position is substituted with a benzyl group. The 44-position is substituted with a benzyl group. The 45-position is substituted with a benzyl group. The 46-position is substituted with a benzyl group. The 47-position is substituted with a benzyl group. The 48-position is substituted with a benzyl group. The 49-position is substituted with a benzyl group. The 50-position is substituted with a benzyl group.</p>
Molecular Weight / Molecular Formula	391.46 Da; C <sub>26</sub> H <sub>21</sub> N <sub>3</sub> O
Purity	>98% (as determined by HPLC)
Appearance / Formulation / Solubility	Off-white to pinkish solid (light yellow in solution). Hardly soluble in water. Stock solution can be made in ethanol at 1 mM (or ~0.4 mg/ml) concentration and stored at -20°C in the dark. Avoid using DMSO to dissolve the material as it may cause oxidation.
Storage & Stability	Store at -20°C. Store in tightly sealed vial. Protect from light.
Applications	Can be used in luciferase assays (e.g. with the Renilla luciferase reporter gene).
References	NA
Caution	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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