

## Manual for v-Coelenterazine

## Cat. #370 v-COELENTERAZINE MW 447.48

**General Notes:** v-Coelenterazine (v-CTZ or CTZ v) is a synthetic analogue of Coelenterazine with an additional benzyl ring. This compound is known to shift the bioluminescent emission 40 nm up with *Renilla* luciferase (please see next page).

**Storage and Shelf-Life:** It is best stored as completely dry  $_{\text{O}}$  powder <u>under Argon</u> in air-tight O-ring plastic tubes at -20°C or  $_{\text{H}}^{\text{I}}$  for longer storage at -80°C, protected from light. Oxygen and



moisture will lead to auto-oxidation of CTZ over time, reducing its overall activity.

**Dissolving and dilution:** It is always best to make FRESH SOLUTIONS immediately before luminometer assays or experiments.

- 1. Dissolve lyophilized v-Coelenteraine in NanoFuel-V Solvent (Cat.#398) as a 1 mg/ml solution.
- 2. Use this stock solution to make an aqueous solution in PBS or TBS (e.g. 100  $\mu$ M for luminometer assays equal to 447.5  $\mu$ l (1 mg/ml) in 10 ml PBS).
- 3. Store dissolved v-Coelenterazine at -80°C, do <u>not</u> store the aqueous working solution (it will oxidize over time).



Properties of Nanolight<sup>™</sup> v-Coelenterazine Cat. #370

A. V-CTZ is shifting the emission maximum by 40nm to longer wavelengths from 480nm to 520nm



B. V-Coelenterazine can be utilized by different Renilla Luciferase variants



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