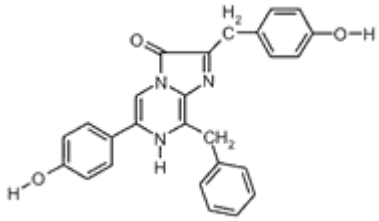
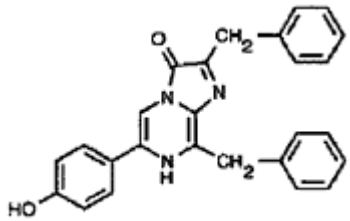
FT-BV0731


# Coelenterazines *in-vivo* grade

*Improved the luciferase signal with highly pure Coelenterazine in sterile injection vials and optimized diluent for in vivo research*

## Product Information

| Product name<br>cat.number | MW<br>($g \cdot mol^{-1}$) | $\lambda_{em.}$ max.<br>(nm) | |
|---|---|---|---|
| **Coelenterazine *i.v. grade***<br>FP-BV0731, 500 µg<br>FP-BV0733, 10 x 500 µg | 423.47 | 465 |  |
| **Benzyl-Coelenterazine *i.v. grade***<br>(Coelenterazine H)<br>FP-BV0681, 500 µg<br>FP-BV0683, 10 x 500 µg | 407.48 | 464 |  |

**Storage:** –20°C (>1 year) Protect from light and moisture

*Sterile injection vial for animal in-vivo imaging use only* - LIMITATIONS: THIS PRODUCT IS NOT INTENDED FOR HUMAN CONSUMPTION OR FOR USE IN HUMAN DIAGNOSTICS

## Introduction

**Bioluminescence** is generation of light by a biochemical reaction involving oxidation of a substrate via an enzyme. This phenomenon has been used extensively in different formats for life science research and drug discovery owing to its extremely high sensitivity, replacing advantageously hazardous methods as radio-element.

## Directions for use

Coelenterazine and Benzyl-Coelenterazine are the obligate luciferin substrates for all Renilla, Gaussia, Ooplophorus, and Metridia Luciferase species. It is also the substrate for the

calcium activated photoproteins derived from Atolla, Aquoria, Halisturia, Beroe and Obelia species of marine organisms. It is the most prevalent luciferin worldwide, and is only found within marine organisms. It has extremely potent anti-oxidative properties.

Coelenterazine native is recommended when a fast regeneration is important. Benzyl-Coelenterazine luminescence intensity is more than 10 times higher than that of aequorin complex formed from native coelenterazine. Coelenterazine *h* is also more sensitive to Ca2+. It is also used for reporter assays (Blood, 94.6, 1999, 1899-1905, Blanpain C Article)

Sterile Coelenterazine and Benzyl Coelenterazine Luciferin have been processed by chromatography and ultra-filtration and are supplied prepackaged in pyrogen free injection vials under sterile conditions.

The supplied vial of diluents contains one milliliter of a 50/50 mixture of USP grade Ethanol and USP grade Propylene Glycol. Using your hands to warm the Propylene Glycol will decrease the time it takes to dissolve the Luciferin but do not be alarmed if this longer than expected.

In our shelf life studies 100% Propylene Glycol(PG) is an excellent solvent by itself, even if it takes a considerable amount of time to dissolve the Luciferin. PG retards the auto-oxidation of the Luciferin which occurs quite rapidly once the Luciferin is dissolved in Methanol or Ethanol. This 50/50 diluent was designed to solvate the Luciferin rapidly, prolongs the storage life, and is far less inflammatory to small vessels so that repeated venous access may occur.

For Renilla luciferase 25-100 micrograms/mouse via IP or IV injection will give good results. For Gaussia luciferase, higher concentrations should be used due to the increased turnover activity of Gaussia luciferase.

Usually 1mg/ml is used, and it should go into suspension quite rapidly. 10mgs/ml is about the most concentrated and a slight precipitate may form at this concentration.

Store solution at –20°C or better –70°C. While not as good as freshly mixed substrate, this should be good for 1-3 weeks. Freshly mix is recommended for best results and accurate reproducible comparative data. Always protect any substrate from light.

## Related products

- D-Luciferin, free acid, FP-27060D
- D-Luciferin, K+ salt, FP-M1224D
- Coelenterazines R&D grade

## Ordering information

Catalog size quantities and prices may be found at http://www.fluoprobes.com
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06





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