# TECHNICAL DATA SHEET

Fluorescent Imaging Reagent

# 5-RhR-dRIS

Catalogue Number: BV140301

* For Laboratory Use. A product for research purposes only, not for human use.

**DESCRIPTION:** *5-RhR-dRIS* is a fluorescent bisphosphonate imaging reagent, which can be used for both *in vitro* and *in vivo* studies.

**CONTENTS:** Each vial contains 24 nmol of *5-RhR-dRIS* in lyophilized dry solid form. The reagent can be reconstituted with aqueous buffers (calcium/magnesium free PBS buffer, 0.9% NaCl solution, or many other buffers of the customers' choice with near neutral pH).

**PROPERTIES:** The physical properties of *5-RhR-dRIS* can be found in **Table 1** and **Figure 1**.

**Table 1. Properties of *5-RhR-dRIS***

| Parameter | Value |
|---|---|
| M.W. | 994.02 g/mol |
| Abs Max[1] | 567.5 nm |
| Em Max[1] | 589 nm |
| Extinction Coefficient[2] | 114,850 $M^{-1}cm^{-1}$ |
| Purity[3] | > 98 % |
| Appearance | Dark pink solid |

[1]UV-VIS absorption and fluorescence emission were measured in 0.1 M phosphate buffer, pH 7.5. The maximum wavelengths shown above have ±1 nm instrumentation error.
[2]The extinction coefficient for *5-RhR-dRIS* is assumed the same as 5-Rhodamine Red-X.
[3]Purity is determined by reverse phase HPLC, $^{1}$H NMR, and $^{31}$P NMR spectroscopy.

## STORAGE & HANDLING:

- Upon receipt, *5-RhR-dRIS* should be **stored at ≤ -20 ºC and protected from light**. When stored and handled properly, *5-RhR-dRIS* is stable for at least 18 months in dry solid form.
- Before opening the vial, check to ensure that all compounds are at the bottom of the vial.
- After reconstituting with aqueous buffers, gently swirl the solution to ensure that the solid is fully dissolved in solution.
- Once reconstituted with aqueous buffers, it is highly recommended to aliquot the solutions for longer-term use, and the aliquots should be stored at **4 ºC or -20 ºC and protected from light.**

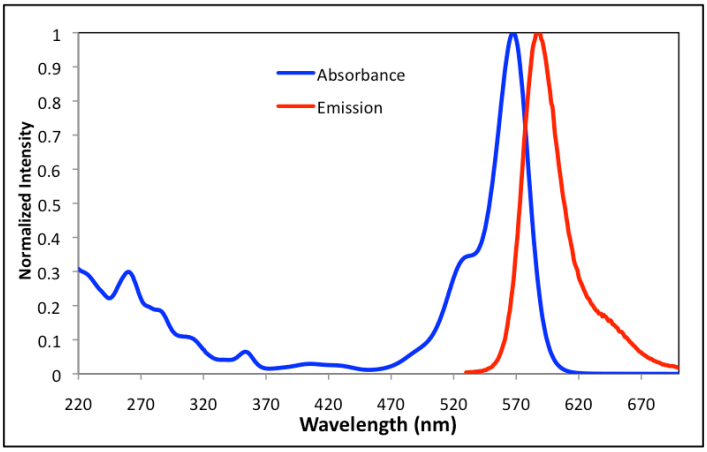


**Figure 1.** Absorbance and emission spectra of *5-RhR-dRIS*, in 0.1 M phosphate buffer, pH 7.5

## IMAGING APPLICATIONS:

- *5-RhR-dRIS* and similar reagents were previously applied in mice, rats and rabbits studies at doses of approximately 50-100 nmol/Kg, which could be a starting point for use in other animal models.
- We also have experience using sequential fluorescent reagents, as well as multiple fluorescent reagents in a single administration; and we would be happy to provide technical advice/support if needed. Please send your technical questions to inquiry@biovinc.com.

## SELECTED REFERENCES:


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*For more references, please visit www.biovinc.com/references.

## NOTES TO CUSTOMERS:

- BioVinc's fluorescent imaging reagents are offered for research purposes only, and are not intended for human use.
- The purchase of this product conveys to the buyer the limited, non-transferable right to use the purchased amount of the product and the components of the product in research conducted by the buyer. BioVinc's products are not available for resale or other commercial uses without a specific agreement from BioVinc LLC.