

# TECHNICAL DATA SHEET

## Fluorescent Imaging Reagent



### 5(6)-ROX-RIS

Catalogue Number: BV150101

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

**DESCRIPTION:** 5(6)-ROX-RIS 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(6)-ROX-RIS 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(6)-ROX-RIS can be found in **Table 1** and **Figure 1**.

#### STORAGE & HANDLING:

- Upon receipt, 5(6)-ROX-RIS should be **stored at  $\leq -20\text{ }^{\circ}\text{C}$  and protected from light**. When stored and handled properly, 5(6)-ROX-RIS 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  $^{\circ}\text{C}$  or  $-20\text{ }^{\circ}\text{C}$  and protected from light**.

#### IMAGING APPLICATIONS:

- 5(6)-ROX-RIS 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](mailto:inquiry@biovinc.com).

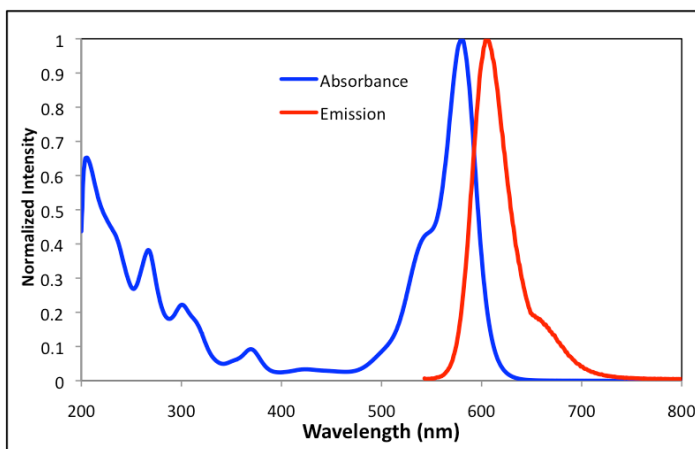
**Table 1. Properties of 5(6)-ROX-RIS**

Parameter	Value
M.W.	874.8 g/mol
Abs Max <sup>1</sup>	580 nm
Em Max <sup>1</sup>	606 nm
Extinction Coefficient <sup>2</sup>	72,000 M <sup>-1</sup> cm <sup>-1</sup>
Purity <sup>3</sup>	> 98 %
Appearance	Purple solid

<sup>1</sup>UV-VIS absorption and fluorescence emission were measured in 0.1 M phosphate buffer, pH 8.0. The maximum wavelengths shown above have  $\pm 1$  nm instrumentation error.

<sup>2</sup>The extinction coefficient for 5(6)-ROX-RIS is assumed the same as 5(6)-X-Rhodamine.

<sup>3</sup>Purity is determined by reverse phase HPLC, <sup>1</sup>H NMR, and <sup>31</sup>P NMR spectroscopy.



**Figure 1.** Absorbance and emission spectra of 5(6)-ROX-RIS, in 0.1 M phosphate buffer, pH 8.0

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\*For more references, please visit [www.biovinc.com/references](http://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.
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