



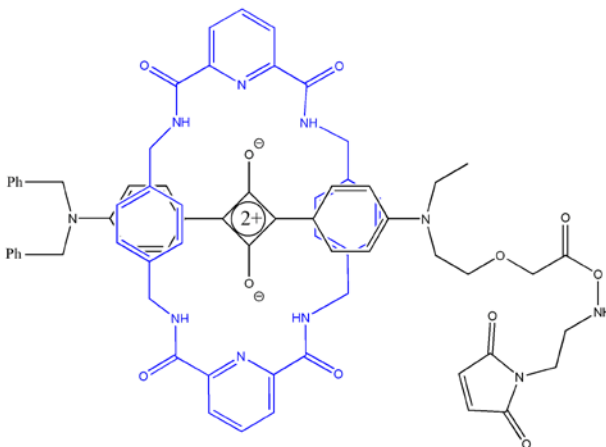
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**Catalog Number: SR-1004**

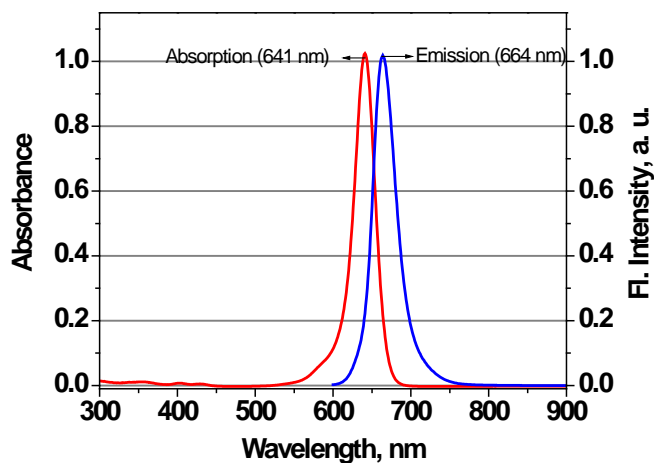
**Product Name: SRfluor® maleimide**

**Product Description:** A far-red emitting dye, belonging to the squaraine rotaxane family of dyes, which bears a maleimide functionality.

*Figure 1: Structure of SRfluor® maleimide*



*Figure 2: Spectra of SRfluor® maleimide (6  $\mu$ M in ethanol) (abs. Max. = 641 nm; em. max = 664 nm)*



**Product size:** 1.00 mg

**Molecular Weight:** 1231

**Product Purity:** > 95% by HPLC at 650nm

**Extinction Coefficient (ethanol):** 213,530 cm<sup>-1</sup>M<sup>-1</sup> (641 nm).

**Storage/Stability:** Solid as well as stock solutions in DMF/DMSO should be stored in the dark at 0-4°C and are found to be stable for at least 1 month.

**Applications:**

SRfluor®-dyes has been found to be 5-20X brighter compared with cyanines, Alexa® and ATTO® dyes and also to have improved chemical and photochemical stability (1-3).

**Additional Information:**

- 1mg of SRfluor®-maleimide can be dissolved in 0.81 mL of DMF/DMSO to provide a 1mM stock solution.
- SRfluor® maleimide can be efficiently excited with either 633nm or 647nm laser lines and detected using a standard filter set-up for Cy5.

**References:**

- (1) Johnson, J. R.; Fu, N.; Arunkumar, E.; Leevy, W. M.; Gammon, S. T.; Piwinica-Worms, D.; Smith, B. D. [Squaraine Rotaxanes: Superior Substitutes for Cy-5 in Molecular Probes for Near-Infrared Fluorescence Cell Imaging \*Angew. Chem. Int. Ed.\* \*\*2007\*\*, \*46\*, 5528.](#)
- (2) Arunkumar, E.; Fu, N.; Smith, B. D. [Squaraine-Derived Rotaxanes: Highly Stable, Fluorescent Near-IR Dyes. \*Chem.-Eur. J.\* \*\*2006\*\*, \*12\*, 4684.](#)
- (3) Arunkumar, E.; Forbes, C. C.; Noll, B. C.; Smith B. D. [Squaraine-Derived Rotaxanes: Sterically Protected Fluorescent Near-IR Dyes \*J. Am. Chem. Soc.\* \*\*2005\*\*, \*127\*, 3288.](#)

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