



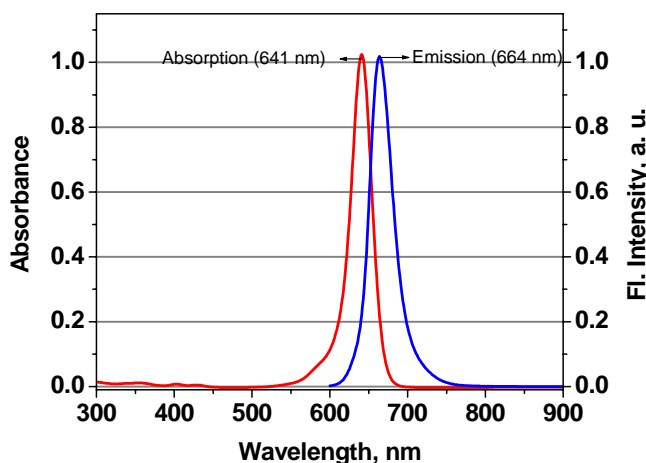
[www.mtarget.com](http://www.mtarget.com) • tel: 610 738 7938 • email: [briangray@mtarget.com](mailto:briangray@mtarget.com)

**Catalog Number: SR-1004**

**Product Name: SRfluor™680 maleimide**

**Product Description:** A far-red emitting dye (Figure 1), belonging to the squaraine rotaxane family of dyes, which bears a maleimide functionality.

*Figure 1: Spectra of SRfluor™-maleimide (6μM in ethanol) (absorption maxima = 641 nm; emission maxima = 664 nm)*



**Product size:** 1.00 mg

**Molecular Weight:** 1231

**Product Purity:** > 95% by HPLC

**Extinction Coefficient (ethanol):** 213530 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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