

Product number: K9-4150
Product name: SeTau-647

General Data

Molecular Mass: 1860.50
1399.63 (protonated form)
Solubility: Water, Alcohol, DMF, DMSO
Insoluble: Chloroform
Storage: Store in absence of light, desiccate and refrigerate

Description

- Extremely bright, water-soluble fluorescent probe for imaging applications.

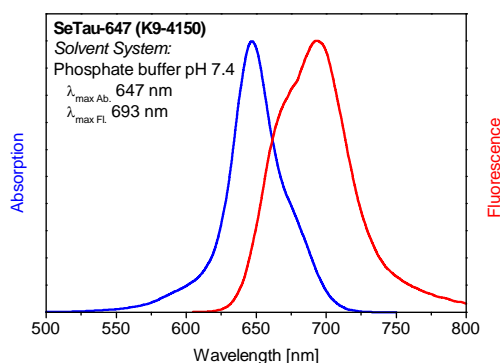
Advantages

- Perfectly suited for excitation with 635, 640, and 650-nm diode lasers
- Large Stokes' shift of ~46 nm (about twice that of **Cy5** or **Alexa 647**).
- Considerably higher photostability compared to fluorescein or other cyanine dyes (Cy5 or Alexa dyes)
- High chemical stability against oxidation with peroxides or other oxygen species
- Several times longer fluorescence lifetime ($\tau \sim 3$ ns) compared to **Cy5** or **Alexa 647** ($\tau \sim 1$ ns)
- Extremely bright and photostable fluorescent probe for the 647-nm Kr-ion laser line
- Very high 2-photon excitation action cross-section (>3000 GM)

Spectral Data

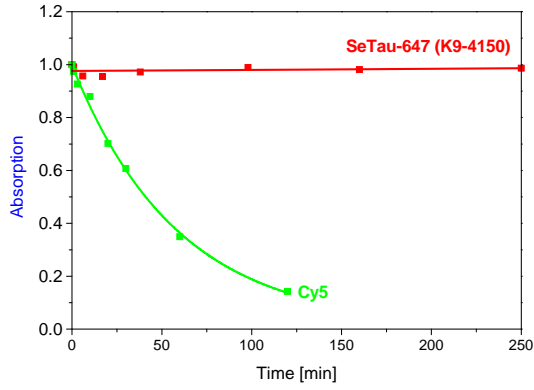
Solvent System	Absorption max. [nm]	Extinction Coefficient [$M^{-1}cm^{-1}$]	Fluorescence max. [nm]	Quantum Yield ¹ [%]	Fluorescence Lifetime at 25 °C [ns]
Phosphate buffer pH 7.4	647	211,000	693	59	3.1

¹ Excitation at 620 nm

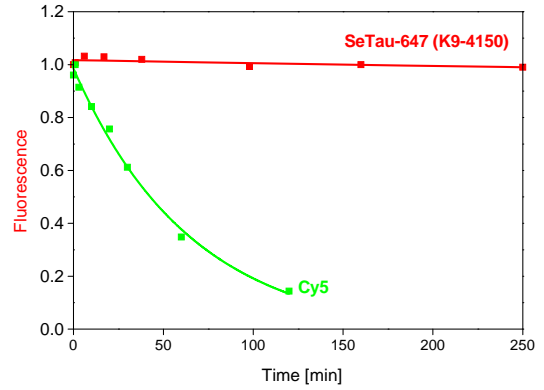


Absorption and emission spectrum of **SeTau-647** in phosphate buffer (pH 7.4)

Photostability



Change in absorption of **SeTau-647** in water upon irradiation with a halogen lamp (300 W)



Change in fluorescence intensity of **SeTau-647** in water upon irradiation with a halogen lamp (300 W)