

Product number: KS-370

Product name: 330–405 nm Fluorescence Lifetime Standard

General Data

Solubility: Water, Alcohol, DMF

Storage: Store in absence of light, desiccate and refrigerate

Description

- Fluorescence lifetime standard for the excitation range between 330 and 405 nm.

Applications

- Calibration of instrumentation for fluorescence lifetime measurements.

Advantages

- Perfectly suited for excitation with 350–380-nm LEDs and diode lasers
- Large Stokes' shift

Spectral Data

Solvent System	Excitation Range [nm]	Emission Range [nm]	Quantum Yield [%]	Fluorescence Lifetime at 25 °C [ns]
Phosphate buffer pH 7.4; water	330–405	450–550	86 ¹	3.18±0.04 ²

¹ Excitation at 355 nm.

² ISS Chronos BH, vs. Ludox, water, $\lambda_{\text{exc.}} = 405$ nm laser, $\tau = 3.14 \pm 0.01$ ns, $\chi^2 = 1.12$;
ISS Chronos FD, phosphate buffer pH 7.4, $\lambda_{\text{exc.}} = 370$ nm LED, $\tau = 3.20$ ns, $\chi^2 = 1.15$;
ISS Chronos BH, vs. Ludox, water, $\lambda_{\text{exc.}} = 370$ nm LED, $\tau = 3.20 \pm 0.01$ ns, $\chi^2 = 1.22$.

Sample Preparation

The standard kit containing 4 vials of the standard is supplied as a solid in a 5 mL vial. The standard is then dissolved in its original vial with 4 mL of distilled or deionized water. For measurement it is recommended to transfer the solution to an optical cuvette using a syringe nano-filter (e.g. 0.45 mm GHP ACRODISC (PALL), not included). Do not store these solutions for an extended period of time.