

Product number: K8-3010
Product name: Square-460

General Data

- Molecular Mass:** 418.53
Solubility: Alcohol, toluene, chloroform, DMF, DMSO
Insoluble: Water
Storage: Store in absence of light at room temperature

Description

- Viscosity-sensitive fluorescent probe

Applications

- Staining of cells
- Assessment of viscosity of probe environment

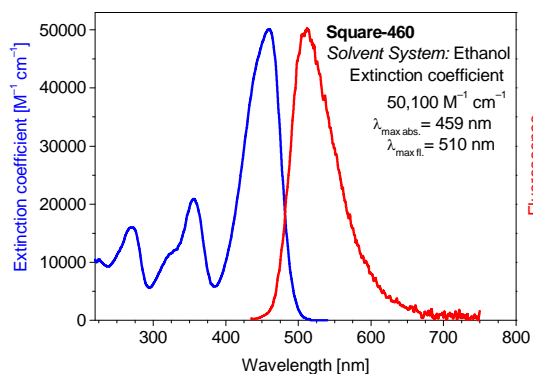
Advantages

- Highly bright probe
- Highly sensitive to viscosity
- Rinsing step after staining is not critical
- Perfectly suited for excitation with the 380-nm, 436-nm and 488-nm diode lasers

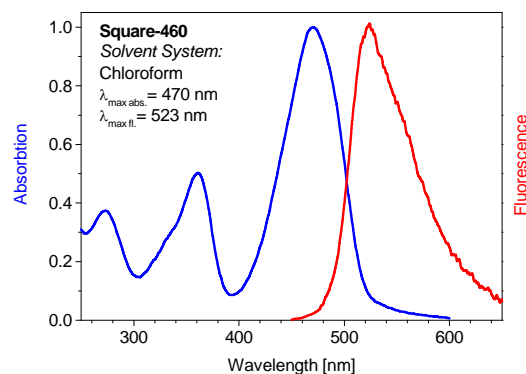
Spectral Data

Solvent System	Absorption max. [nm]	Extinction Coefficient [$M^{-1}cm^{-1}$]	Fluorescence max. [nm]	Q.Y. ¹ [%]
Phosphate buffer pH 7.4	467		515	0.9
Ethanol	459	50,100	510	1.3
Chloroform	470		523	1.7
Toluene	469		522	1.7
6 g/L BSA / phosphate buffer	469		512	8.6
Glycerol	470		515	43

¹ Excitation at 450 nm



Absorption and emission spectrum of **Square-460** in ethanol



Absorption and emission spectrum of **Square-460** in chloroform

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Staining of *Saccharomyces cerevisiae* yeast cells with Square-460

- 1) Prepare 1 mM solution of **Square-460** in an appropriate solvent (methanol, ethanol, DMF, DMSO): e.g. dissolve 1 mg of the dye in 2.4 mL of the solvent.
- 2) Add an aliquot of the stock solution to cell suspension: e.g. 1 uL of 1 mM dye solution add to the 1 mL of *Saccharomyces cerevisiae* cell suspension (10^7 cells/mL).
- 3) Stir cells in a shaker for 15 min at room temperature.
- 4) Because the unbound dye is almost non-fluorescent in aqueous solutions, rinsing step is not critical.
- 5) Then the stained cells can be utilized in fluorescence microscopy or flow cytometry.