

Product number: K8-3003

Product name: Seta-470-Maleimide

General Data

Molecular Mass: 878.13

Solubility: Water, alcohol, DMF, DMSO

Insoluble: Acetone, chloroform, toluene

Storage: Store in absence of light, desiccated and refrigerate

Description

- Highly hydrophilic, viscosity-sensitive, thiol-reactive label containing one maleimide group

Applications

- Covalent labeling of proteins, thiol-modified DNA and thiol-modified oligonucleotides
- Viscosity sensitive label for probe environment
- Viscosity sensitive fluorescence lifetime label — this label exhibits a distinct lifetime change upon changing the viscosity of the environment

Advantages

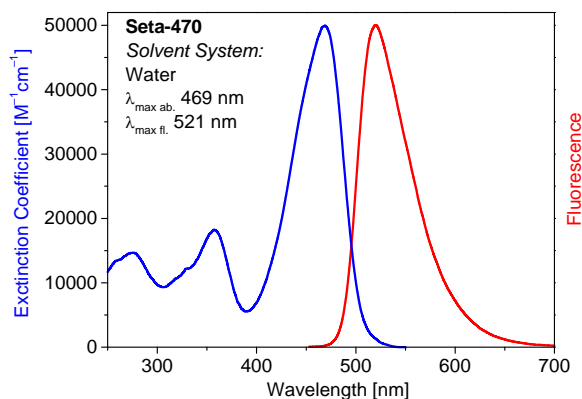
- Perfectly suited for excitation with the 330, 436, and 470-nm diode lasers and UV light
- Large Stokes' shift
- Viscosity related changes in Q.Y. and lifetime
- pH-insensitive between pH 3 and pH 10
- Good aqueous solubility
- Ideal for non-radioactive labeling of proteins, thiol-modified DNA probes and thiol-modified oligonucleotides

Spectral Data

Sample	Solvent System	Absorption max. [nm]	Extinction Coefficient [$M^{-1}cm^{-1}$]	Fluorescence max. [nm]	Q.Y. ¹ [%]
Free dye	water	469	50,000	521	1.9 ²
Free dye	ethanol	462		515	2.2

¹Excitation at 400 nm

²The quantum yield substantially increase when the dye is bound to protein or antibody



Absorption and emission spectrum of **Seta-470** in water