

Product number: K7-544
Product name: SeTau-425-Maleimide

General Data

- Molecular Mass:** 568.06
- Solubility:** Water, alcohol, DMF, DMSO
- Insoluble:** Acetone, chloroform, toluene
- Storage:** Store in absence of light, desiccated and refrigerate

Description

- Hydrophilic, thiol-reactive, long-lifetime fluorescent label containing one maleimide group, with one positive charge and chloride as the counter-ion.

Applications

- Covalent labeling of proteins, thiol-modified DNA, thiol-modified oligonucleotides and lipids.
- Fluorescence lifetime assays.
- Fluorescence polarization-based assays of high molecular weight antigens.

Advantages

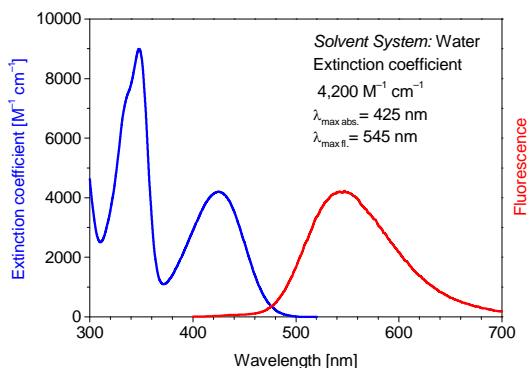
- Strongly fluorescent label for proteins and other biomolecules
- Long fluorescence lifetime of 26.2 ns in water
- Perfectly suited for excitation with the 380-nm, 404-nm and 436-nm diode lasers or the new 330-nm LED.
- Large Stokes' shift (> 100nm)
- Highly soluble in aqueous buffer

Spectral Data

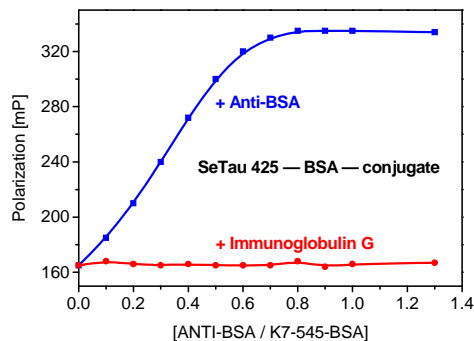
Sample	Dye-to-protein Ratio	Solvent System	Absorption max. [nm]	Extinction Coefficient [M ⁻¹ ·cm ⁻¹]	Fluorescence ¹ max. [nm]	Q. Y. [%]	Luminescence Lifetime [ns]		
							τ ₁	τ ₂	Mean τ
Free dye	—	water	425 340	4,200 9,000	545	39	26.2	—	26.2

¹ Excitation at 400 nm

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Absorption and emission spectra of **SeTau 425** in water



Changes in Fluorescence Polarization of **SeTau 425—BSA** (MW ~ 65 kDa) upon titration with anti-BSA. The labeled BSA has still a relatively low polarization of 165 mP and only upon addition of antibody the polarization increases gradually to its final value of 335 mP, which demonstrates the usefulness of this label for the measurement of high-molecular-weight antigens in a Fluorescence Polarization Immunoassay (FPA)