

General Data

- Molecular Mass:** 688.75 (protonated form)
- Solubility:** water, alcohol, DMF, DMSO
- Insoluble:** acetone, chloroform, toluene
- Storage:** Store in absence of light, desiccated and refrigerate

Description

Highly hydrophilic, amine-reactive, long-lifetime label containing one NHS-ester group.

Applications

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

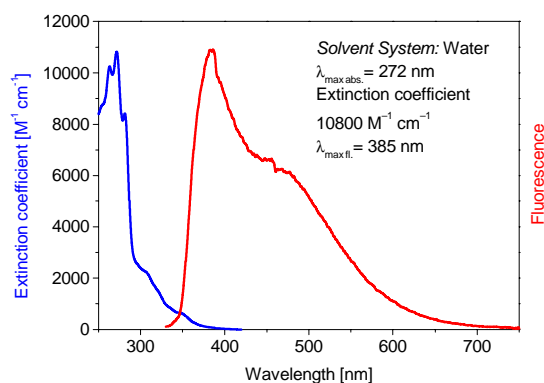
Advantages

- Highly fluorescent label for proteins, oligos and other biomolecules.
- Perfectly suited for excitation with the 280-nm or 300-nm LEDs, and 380-nm diode laser.
- Extremely large Stokes' shift of the protein-bound form.
- Long fluorescence lifetime in aqueous buffer.
- High fundamental polarization in absence of rotational motion.
- Highly soluble in aqueous buffer.

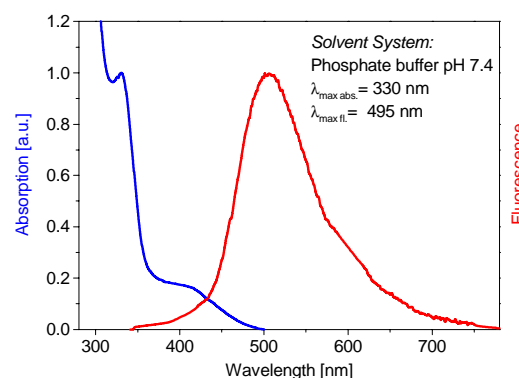
Spectral Data

Sample	Absorption max. [nm]	Extinction Coefficient [M ⁻¹ .cm ⁻¹]	Fluorescence ¹ max. [nm]	Q.Y. [%]	Luminescence Lifetime [ns]				Polarization
					τ_1	τ_2	τ_3	Mean τ	
Free dye in water	272	10,800	385	6	1.1 (21%)	8.1 (53%)	22.2 (26%)	10.2	0.26
BSA conjugate in water	330		495	5	1.7 (5%)	9.1 (81%)	31.3 (14%)	11.7	

¹ Excitation at 330 nm



Absorption and emission spectra of K4-1082 in water



Absorption and emission spectra of K4-1082 — BSA conjugate in phosphate buffer (pH 7.4)