

Product name:**5-(and-6)-Carboxytetraethylrhodamine,
inner salt, NHS ester****General Data**

- Molecular Mass:** 583.63
- Solubility:** Water, Alcohol, DMF, DMSO
- Insoluble:** Acetone, Chloroform, Toluene
- Storage:** Store out of light, desiccated and refrigerate

Description

Amine-reactive, neutral fluorescent label containing one reactive NHS-ester groups

Applications

Covalent labeling of proteins, amino-modified DNA and amino-modified oligonucleotides

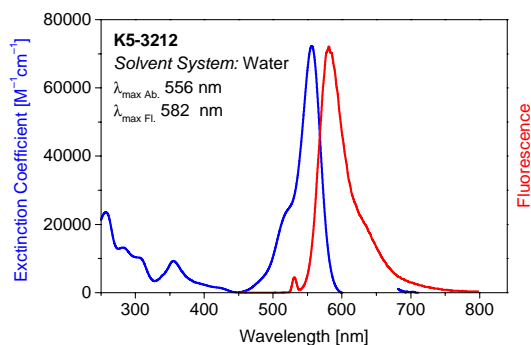
Advantages

- Perfectly suited for excitation with the 532-nm diode laser
- Sensitive; high extinction coefficient and high quantum yield up to 40% after covalent attachment to proteins
- Good aqueous solubility; this label does not alter the solubility of the dye-conjugate
- Low molecular weight — **K5-3212** does not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of proteins, amino-modified DNA probes and amino-modified oligonucleotides

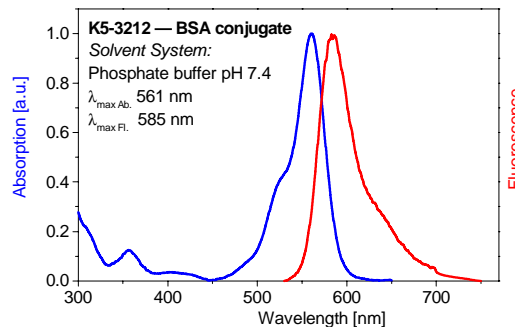
Spectral Data

Sample	Dye-to-protein Ratio	Solvent System	Absorption max. [nm]	Extinction Coefficient [$M^{-1}\cdot cm^{-1}$]	Fluorescence ¹ max. [nm]	Quantum Yield [%]
Free dye	—	Water	556	72,000	582	29
BSA conjugate 1	0.1	PB 7.4	561		582	39
BSA conjugate 2	0.2	PB 7.4	561		583	31
BSA conjugate 3	0.5	PB 7.4	561		584	26
BSA conjugate 4	0.8	PB 7.4	561		585	20
BSA conjugate 5	1	PB 7.4	560		585	18
BSA conjugate 6	2.0	PB 7.4	560		585	10

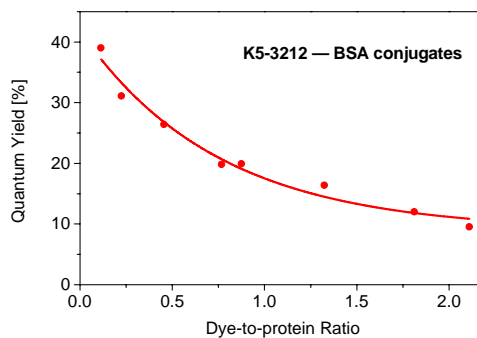
¹ Excitation at 532 nm



Absorption and fluorescence spectra
of **K5-3212** in water



Absorption and fluorescence spectra
of **K5-3212 — BSA conjugate**
in phosphate buffer (pH 7.4)



Quantum Yield vs Dye-to-protein Ratio
of **K5-3212 — BSA conjugates**
in phosphate buffer (pH 7.4)