

**Product number: K8-1667**  
**Product name: Seta-635-NH-di-NHS**

## General Data

- Molecular Mass:** 950.99 (protonated form)  
**Solubility:** Water, Alcohol, DMF, DMSO  
**Insoluble:** Acetone, Chloroform, Toluene  
**Storage:** Store out of light, desiccated and refrigerate

## Description

Amine-reactive fluorescent label containing two reactive NHS-ester groups

## Applications

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

Fluorescence Lifetime Label — this label exhibits a distinct lifetime change upon binding to a biomolecule

## Advantages

- Perfectly suited for excitation with the 635-nm diode laser
- Sensitive; high extinction coefficients and high quantum yields up to 30% after covalent attachment to proteins
- Low non-specific binding
- Good aqueous solubility; this label does not alter the solubility of the protein conjugate
- High photostability
- Low molecular weight — **Seta** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of proteins, amino-modified DNA probes and amino-modified oligonucleotides

## Spectral Data

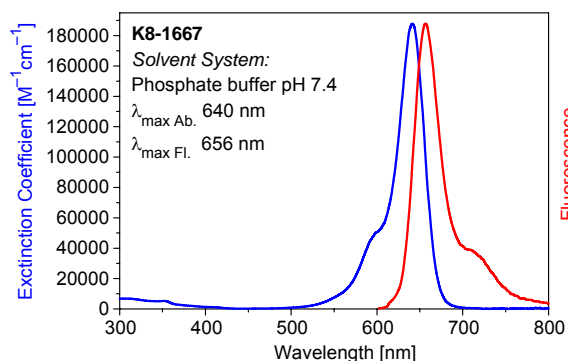
**Solvent System:** phosphate buffer, pH 7.4

Sample	Dye-to-protein Ratio	Absorption max. [nm]	Extinction Coefficient [ $M^{-1}\cdot cm^{-1}$ ]	Fluorescence* max. [nm]	Quantum Yield [%]
Free dye	—	640	188,000	656	33
BSA conjugate 1	0.5	655		670	27
BSA conjugate 2	1.0	655		670	14
BSA conjugate 3	1.5	655		670	5
IgG conjugate 1	1.0	646		663	21
IgG conjugate 2	2.0	646		663	16

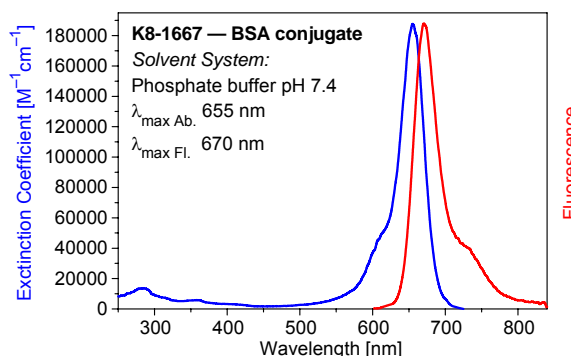
\* Excitation at 620 nm

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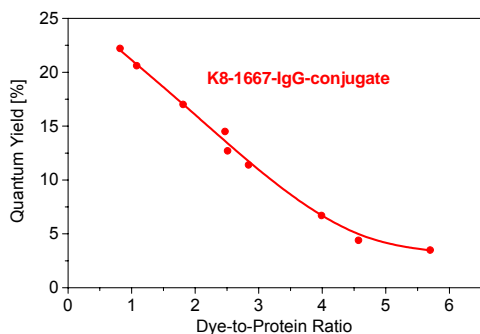
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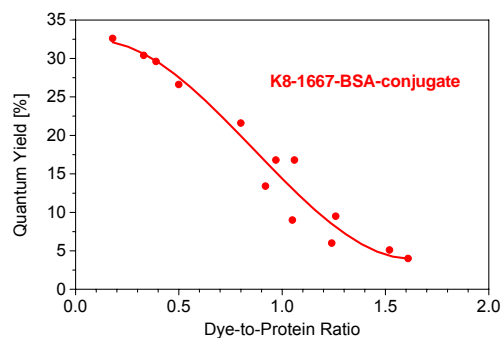
Absorption and fluorescence spectra of **K8-1667** in phosphate buffer (pH 7.4)



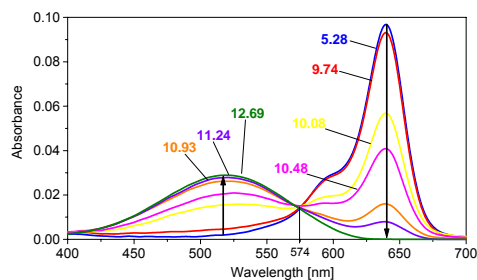
Absorption and fluorescence spectra of **K8-1667 — BSA conjugate** in phosphate buffer (pH 7.4)



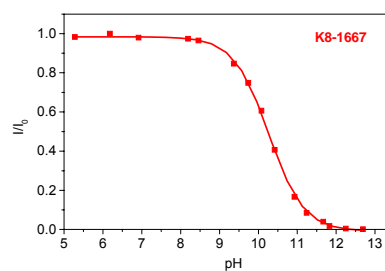
Quantum Yield vs Dye-to-protein Ratio of **K8-1667 — IgG conjugates**



Quantum Yield vs Dye-to-protein Ratio of **K8-1667 — BSA conjugates**



Absorption spectrum of **K8-1667** vs. pH



Normalized fluorescence intensity of **K8-1667** vs. pH values (pKa 10.3)