

Product number: K8-1367
Product name: Seta-670-NH-di-NHS

General Data

- Molecular Mass:** 999.03 (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 670-nm, 635-nm, 404-nm and 370-nm diode lasers, and UV light
- Sensitive; high extinction coefficients and high quantum yields up to 20% after covalent attachment to proteins
- Low non-specific binding
- pH-sensitive between pH 7 and pH 11, and pH-insensitive between pH 3 and pH 7
- Good aqueous solubility; this label does not alter the solubility of the protein conjugate
- 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

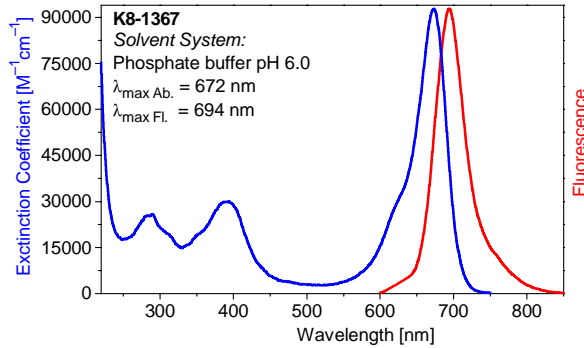
Solvent System: phosphate buffer, pH 6.0

Sample	Dye-to-protein Ratio	Absorption max. [nm]	Extinction Coefficient [$M^{-1}\cdot cm^{-1}$]	Fluorescence* max. [nm]	Quantum Yield [%]
Free dye	—	672	93,000	694	15
IgG conjugate	1.0	684		703	7
BSA conjugate 1	0.2	693		712	20
BSA conjugate 2	1.0	693		712	8

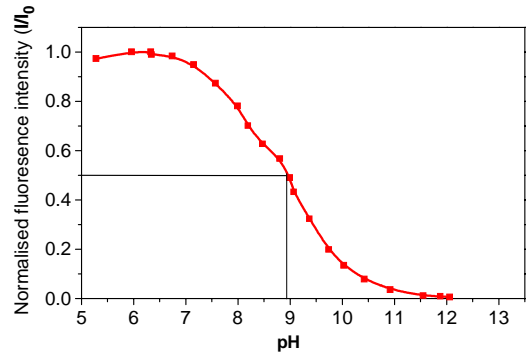
* Excitation at 620 nm

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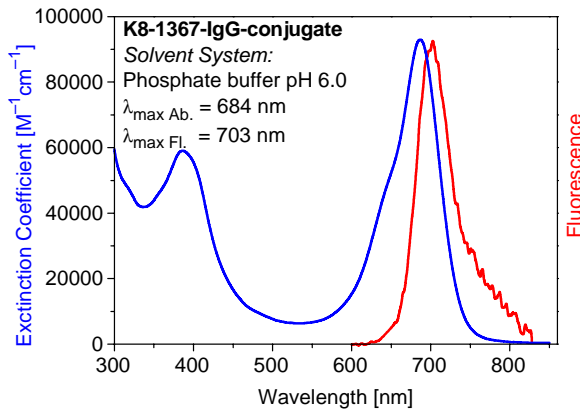
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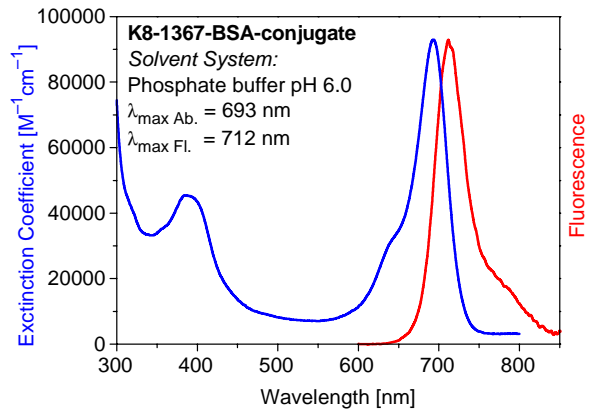
Absorption and fluorescence spectra of **K8-1367** in phosphate buffer (pH 7.4)



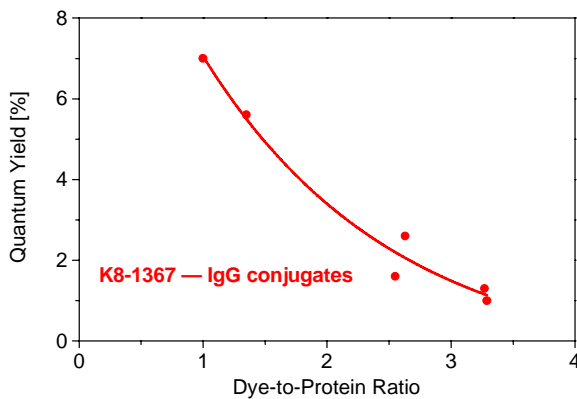
Fluorescence intensity of **K8-1367** vs. pH



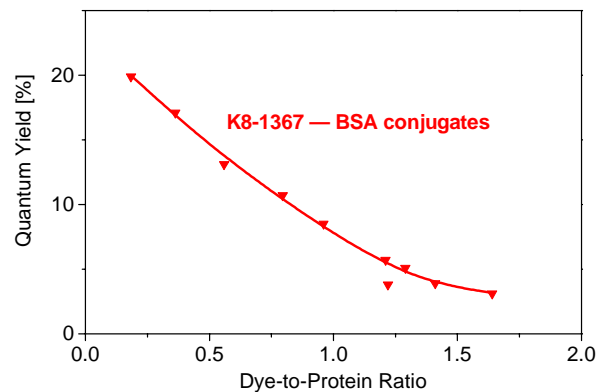
Absorption and fluorescence spectra of **K8-1367 — IgG conjugate** in phosphate buffer (pH 6.0)



Absorption and fluorescence spectra of **K8-1367 — BSA conjugate** in phosphate buffer (pH 6.0)

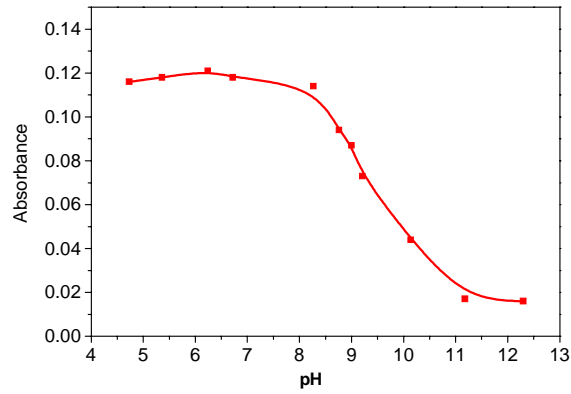


Quantum Yield vs. Dye-to-protein Ratio of **K8-1367 — IgG conjugates** in phosphate buffer (pH 6.0)



Quantum Yield vs. Dye-to-protein Ratio of **K8-1367 — BSA conjugates** in phosphate buffer (pH 6.0)

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Absorbance of **K8-1367 — BSA conjugate** vs. pH