SETA BioMedicals
http://www.setabiomedicals.com
e-mail: info@setabiomedicals.com

Product number: K8-1377
Product name: Seta-690-NH-di-NHS

General Data

Molecular Mass: 1259.28

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 group.

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
- Resonance Energy Transfer (RET)
- Flow Cytometry
- Immunofluorescence
- Gene Expression
- Homogeneous Assays
- Assessment of protein structure

Advantages

- Perfectly suited for excitation with the 404-nm and 670-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
- High photostability; e.g. compared to fluorescein or **Cy5**™
- 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	—	693	113,000	714	14
BSA conjugate 1	0.5	711		726	17
BSA conjugate 2	1.0	711		726	14
BSA conjugate 3	1.5	710		728	11
BSA conjugate 4	2.0	710		730	10

* Excitation at 645 nm

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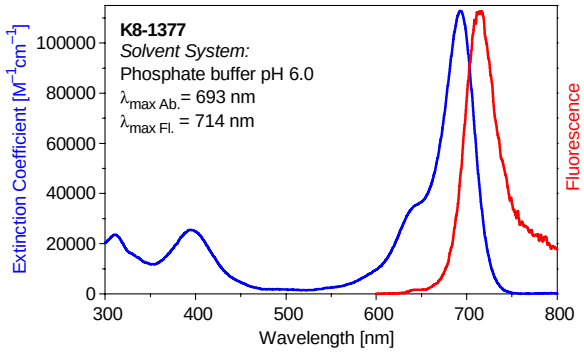
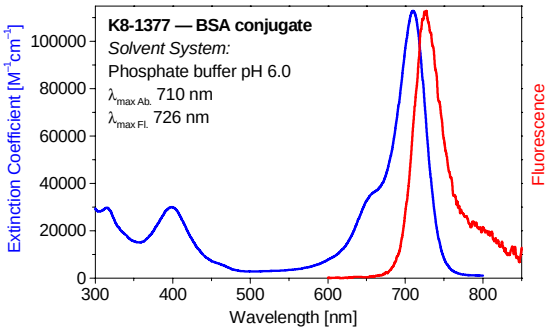
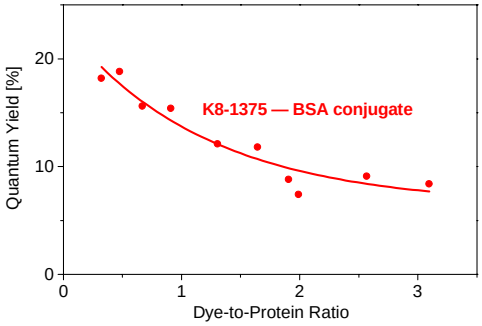


Absorption and emission spectrum of **K8-1377** in phosphate buffer (pH 6.0)



Absorption and emission spectrum of **K8-1377 — BSA conjugate (D/P = 1.5)** in phosphate buffer (pH 6.0)



Quantum Yield *vs* Dye-to-protein Ratio of **K8-1377 — BSA conjugates** in phosphate buffer (pH 6.0)