

Product number: K8-1641

Product name: Seta-632-mono-Maleimide

General Data

- Molecular Mass:** 1201.56
943.07 (protonated form)
- Solubility:** Water, Alcohol, DMF, DMSO
- Insoluble:** Acetone, Chloroform, Toluene
- Storage:** Store in absence of light, desiccate and refrigerate

Description

Highly hydrophilic, thiol-reactive fluorescent label containing one reactive maleimide groups.

Applications

Covalent labeling of thiol-modified peptides, oligonucleotides, and proteins

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

Fluorescence intensity and fluorescence polarization-based applications

Advantages

- Perfectly suited for excitation with the 635 nm diode lasers
- Sensitive; high extinction coefficients and high quantum yields after covalent attachment to biomolecules
- Quantum yield is highly increased after covalent and non-covalent association with proteins
- pH-insensitive between pH 3 and pH 10
- Good aqueous solubility; this label does not alter the solubility of the bioconjugate
- High photostability; e.g. compared to fluorescein or Cy5TM
- Low molecular weight — **Seta** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of thiol-modified proteins, peptides, and oligonucleotides

Spectral Data

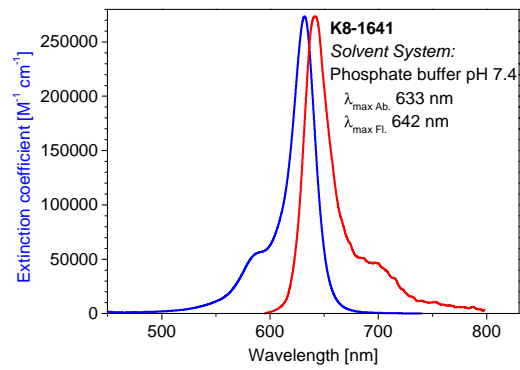
Solvent System: phosphate buffer pH 7.4

Sample	Dye-to-protein Ratio	Absorption max. [nm]	Extinction Coefficient [$M^{-1}.cm^{-1}$]	Fluorescence* max. [nm]	Quantum Yield [%]
Free dye	—	633	270,000	642	5

* Excitation at 620 nm

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Absorption and fluorescence spectra of **K8-1641** in phosphate buffer (pH 7.4)