

Product number: K8-5045

Product name: Seta-650-DBCO

General Data

- Molecular Mass:** 1431.85
1173.36 (protonated)
- Solubility:** Water, Alcohol, DMF, DMSO
- Insoluble:** Acetone, Chloroform, Toluene
- Storage:** Store in absence of light, desiccate and refrigerate

Description

- Highly hydrophilic, azide-reactive reagent containing one dibenzocyclo-octyne (DBCO) functionality for strain-mediated [Cu-free click chemistry](#) reactions.

Applications

- [Cu-free click chemistry reaction](#) with azide-modified proteins, azide-modified DNA and azide-modified oligonucleotides
- Fluorescence intensity and fluorescence polarization-based applications
- Resonance Energy Transfer (RET)
- Flow Cytometry
- Immunofluorescence
- Gene Expression
- Homogeneous Assays
- Microarrays

Advantages

- Perfectly suited for excitation with 635, 647 or 650-nm diode lasers
- Sensitive; high extinction coefficients and high quantum yields after covalent attachment to biomolecules
- pH-insensitive between pH 3 and pH 10
- Good aqueous solubility; this label does not alter the solubility of a bioconjugate
- High photostability; e.g. compared to **Cy5™**
- Ideal for non-radioactive labeling of azide-modified molecules (drugs, proteins, oligos, lipids and DNA)

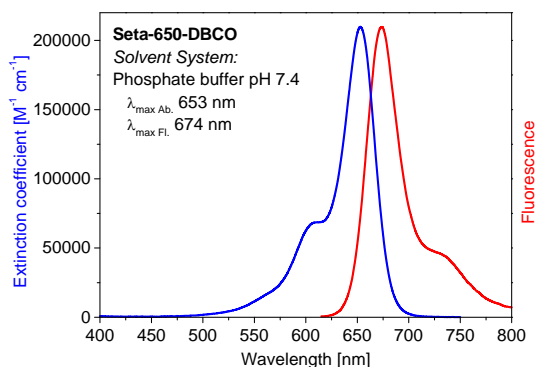
Spectral Data

Solvent System: phosphate buffer pH 7.4

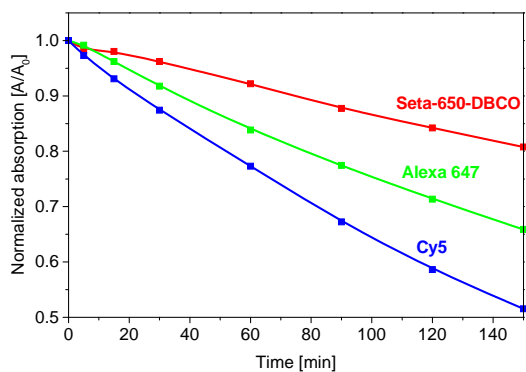
Sample	Absorption max. [nm]	Extinction Coefficient [M ⁻¹ cm ⁻¹]	Fluorescence max. [nm]	Quantum Yield ¹ [%]
Free dye	653	200,000	674	28

¹ Excitation at 610 nm

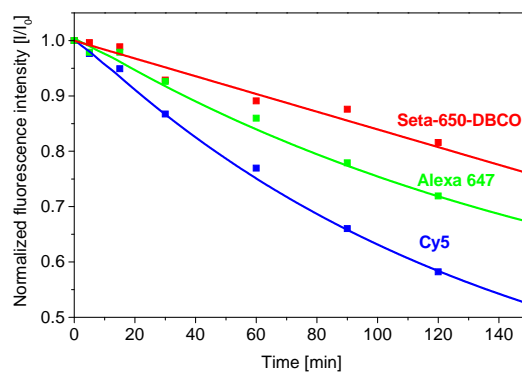
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Absorption and emission spectrum of **Seta-650-DBCO** in phosphate buffer (pH 7.4)



Decrease of the long-wavelength absorption band of **Seta-650-DBCO** compared to **Cy5** and **Alexa Fluor 647**



Decrease of the fluorescence intensity of **Seta-650-DBCO** compared to **Cy5** and **Alexa Fluor 647**