SETA BioMedicals
Fluorescent Tools for BioMedical Applications

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

Product number: K8-5046
Product name: Seta-650-Azide

General Data

Molecular Mass: 969.10

Solubility: water, alcohol, DMF, DMSO

Insoluble: acetone, chloroform, toluene

Storage: Store in absence of light, desiccated and refrigerate

Description

- Hydrophilic, alkyne-reactive, long-lifetime reagent for click chemistry containing one azide function. Azides react with C≡C-triple bonds in either a Cu(I)-catalyzed or Cu-free 1,3-dipolar cycloaddition reaction to triazole.

Applications

- Click Chemistry reagent
- Fluorescence intensity and fluorescence polarization-based applications
- Resonance Energy Transfer (RET)

Advantages

- Perfectly suited for excitation with the 635-nm and 650-nm diode lasesr
- 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
- Photostability: Higher photostability as compared to **Alexa Fluor**™ **647** or **Cy5**™
- Low molecular weight: **Seta** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of alkyne-modified proteins, DNA and oligonucleotides

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	651	200,000	671	28

[1] Excitation at 610 nm

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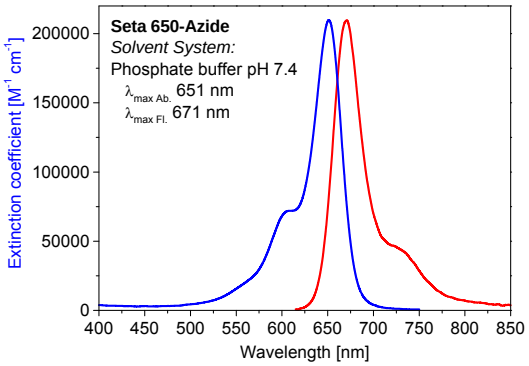
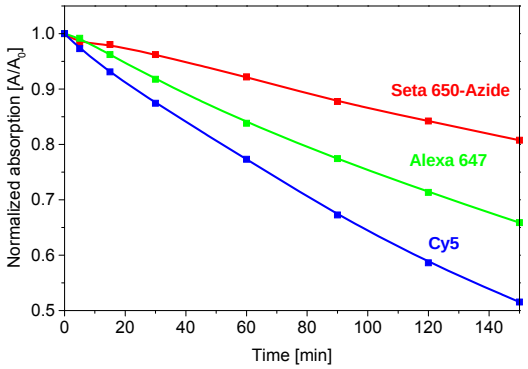
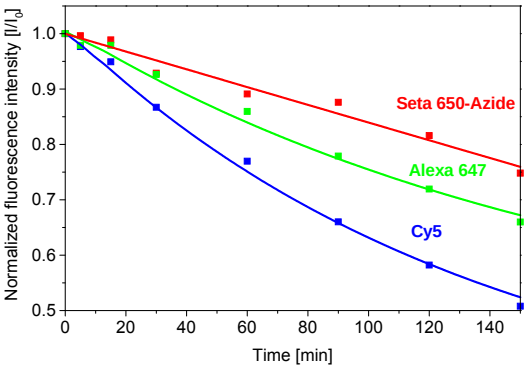


Absorption and emission spectrum
of a **Seta-650-Azide** in phosphate buffer (pH 7.4)



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



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