SETA BioMedicals
Fluorescent Tools for BioMedical Applications
http://www.setabiomedicals.com
e-mail: info@setabiomedicals.com

Product number: K8-1665
Product name: Seta-635-pH-di-Carboxy

General Data

Molecular Mass: 756.84 (protonated form)

Solubility: Water, Alcohol, DMF, DMSO

Insoluble: Acetone, Chloroform, Toluene

Storage: Store in absence of light, desiccated and refrigerate

Description

- pH-Sensitive fluorescent probe containing two carboxylic groups and pKa = 10.2.

Applications

- pH-Sensitive applications.
- Fluorescence lifetime applications — this label exhibits a distinct lifetime change upon binding to a biomolecule.

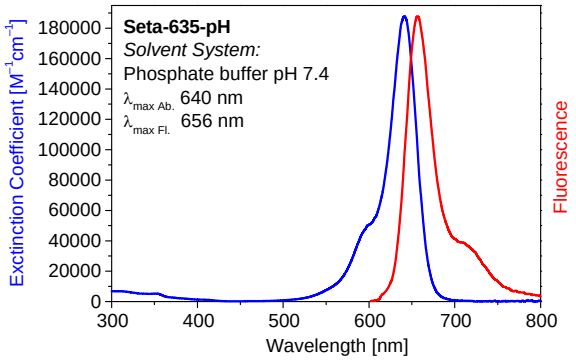
Advantages

- Perfectly suited for excitation with the 594 and 635-nm diode lasers.
- Sensitive; high extinction coefficient and high quantum yield.
- pH-sensitive between pH 9 and pH 11, and pH-insensitive between pH 3 and pH 8.
- Good aqueous solubility.
- High photostability; e.g. compared to **CypHer 5**™.

Spectral Data

Protonated form (phosphate buffer, pH < 9)					Deprotonated form (pH > 11)	pK_a	pH-Range
Absorption max. [nm]	Extinction Coefficient [$M^{-1}cm^{-1}$]	Fluorescence max. [nm]	Quantum Yield[1] [%]	Fluorescence Lifetime at 25 °C [ns]	Absorption max. [nm]		
640	188,000	656	33	1.80	519	10.2	9.2–11.8

[1] Excitation at 620 nm



Absorption and fluorescence spectra of **Seta-635-pH** in phosphate buffer (pH 7.4)

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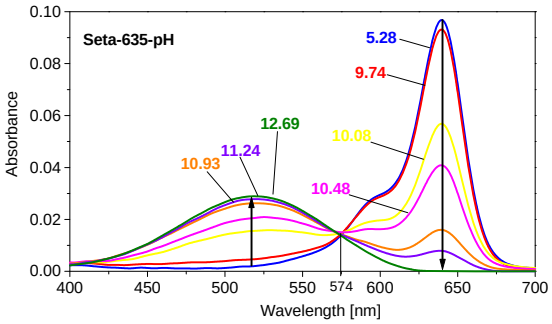
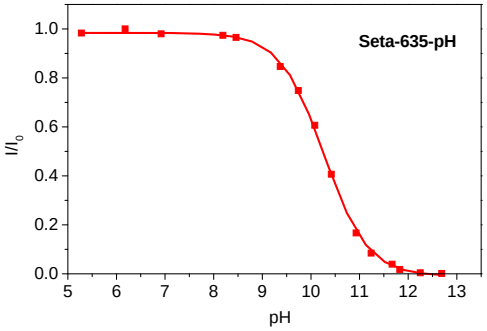


Absorption spectrum of **Seta-635-pH** *vs.* pH



Normalized fluorescence intensity of **Seta-635-pH** vs. pH values (pKa 10.3)