

Product number: K8-1405

Product name: Square-650-pH-Carboxy

General Data

- Molecular Mass:** 799.01
669.77 (protonated form)
- Solubility:** water, alcohol, DMF, DMSO
- Insoluble:** acetone, chloroform, toluene
- Storage:** Store in absence of light, desiccated and refrigerate

Description

- Hydrophilic, pH-sensitive fluorescent dye containing one carboxylic acid group and pKa in the physiological pH range (pKa = 7.1).

Applications

- pH-Sensitive, fluorescent probe.
- Cell-based imaging applications of e.g. receptor translocations, plasma membrane associated receptor activation or GPCR-ligand interactions *via* constitutive endocytosis.

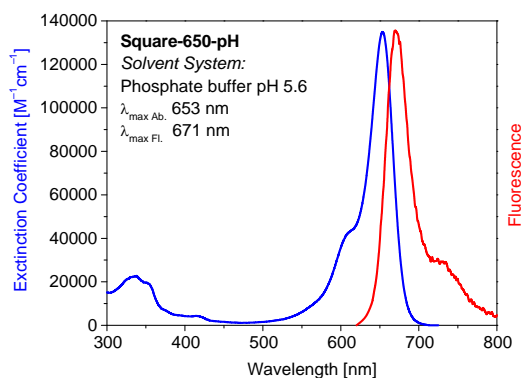
Advantages

- Perfectly suited for excitation with the 594, 635 and 650-nm diode lasers.
- Good aqueous solubility.

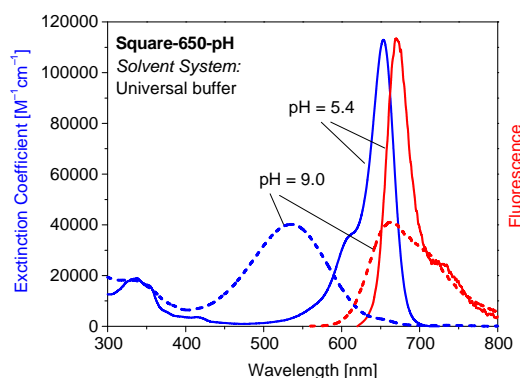
Spectral Data

Solvent System	Absorption max. [nm]	Extinction Coefficient [M ⁻¹ cm ⁻¹]	Fluorescence max. [nm]	Quantum Yield ¹ [%]	Luminescence Lifetime at 25 °C [ns]
Phosphate buffer pH 5.6	653	135,000	671	16	1.17
Universal Buffer pH 9.0	535	48,000	663	9	0.53

¹ Excitation at 620 nm



Absorption and emission spectrum of **Square-650-pH** in phosphate buffer (pH 5.6)

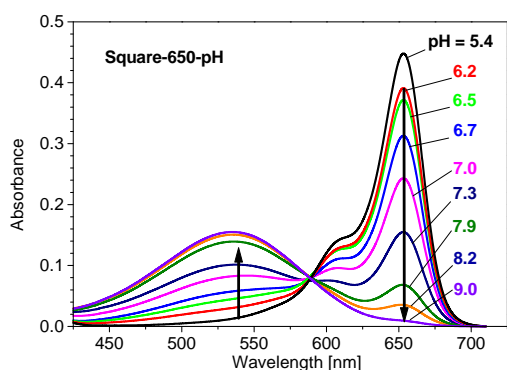


Absorption and emission spectrum of **Square-650-pH** in universal buffer at pH 5.4 and 9.0

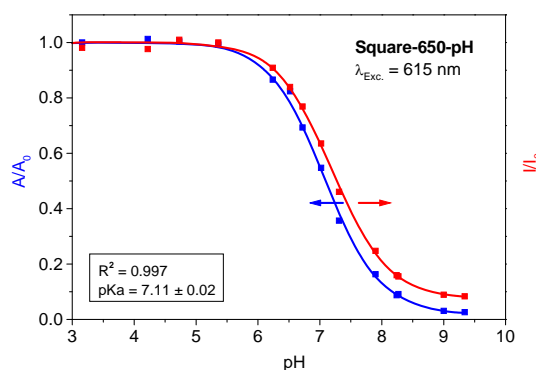
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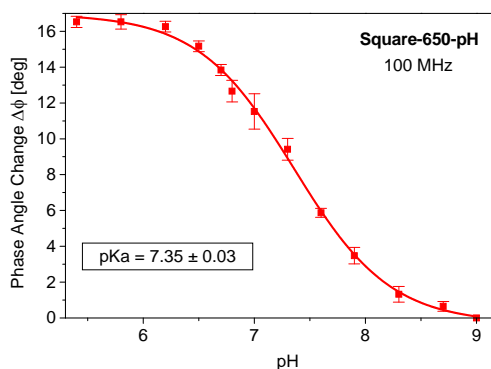
http://www.setabiomedicals.com
e-mail: info@setabiomedicals.com



Absorption spectra of **Square-650-pH** as a function of pH



pH-titration curves of **Square-650-pH** ($pK_a \sim 7.1$): normalized absorption / emission intensity vs. pH



Changes in phase angle of **Square-650-pH** vs. pH, when measured at 100 MHz ($pK_a = 7.4$). Model: Boltzman. $\chi^2 = 0.11$