**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**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphate buffer pH 5.6</td>
<td>653</td>
<td>135,000</td>
<td>671</td>
<td>16</td>
<td>1.17</td>
</tr>
<tr>
<td>Universal Buffer pH 9.0</td>
<td>535</td>
<td>48,000</td>
<td>663</td>
<td>9</td>
<td>0.53</td>
</tr>
</tbody>
</table>

^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
**Product number:** K8-1405  
**Product name:** Square-650-pH-Carboxy

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

pH-titration curves of **Square-650-pH** (pKa = 7.1): normalized absorption/ emission intensity vs. pH

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