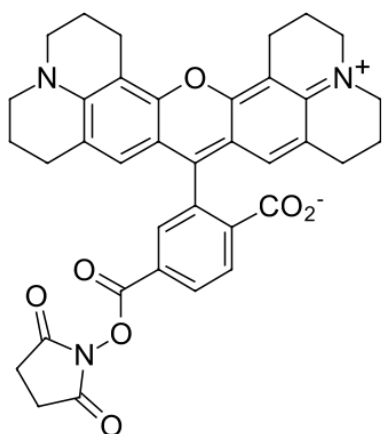


## ROX NHS ester, 6-isomer

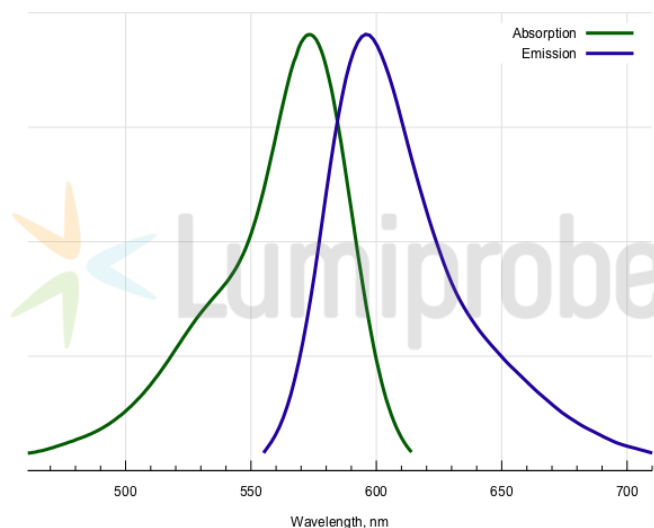
<http://www.lumiprobe.com/p/6-rox-nhs-ester>

ROX (Rhodamine X, R101) is a highly fluorescent, and photostable rhodamine dye for various applications. ROX labeled oligonucleotide probes are often used in qPCR, and qPCR instruments have ROX channel.

This is reactive dye for the labeling of amino-groups in peptides, proteins, and amino-oligonucleotides. Pure single isomer.



**Absorption and emission spectra of ROX dye**



**Absorption and emission spectra of ROX dye**

### General properties

|                         |                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appearance:             | dark crimson powder                                                                                                                                         |
| Mass spec M+ increment: | 516.2                                                                                                                                                       |
| Molecular weight:       | 631.67                                                                                                                                                      |
| CAS number:             | 117491-83-5; 1890922-83-4; 216699-36-4                                                                                                                      |
| Molecular formula:      | C <sub>37</sub> H <sub>33</sub> N <sub>3</sub> O <sub>7</sub>                                                                                               |
| Solubility:             | good in polar organic solvents (DMF, DMSO), low in water                                                                                                    |
| Quality control:        | NMR <sup>1</sup> H, HPLC-MS (80+%, balance mostly free carboxylic acid)                                                                                     |
| Storage conditions:     | Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate. |

### Spectral properties

|                                                      |       |
|------------------------------------------------------|-------|
| Excitation/absorption maximum, nm:                   | 570   |
| $\epsilon$ , L·mol <sup>-1</sup> ·cm <sup>-1</sup> : | 88000 |
| Emission maximum, nm:                                | 591   |
| Fluorescence quantum yield:                          | 1.0   |
| CF <sub>260</sub> :                                  | 0.62  |
| CF <sub>280</sub> :                                  | 0.49  |