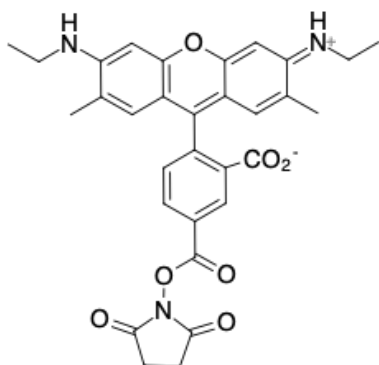


## R6G NHS ester, 5-isomer

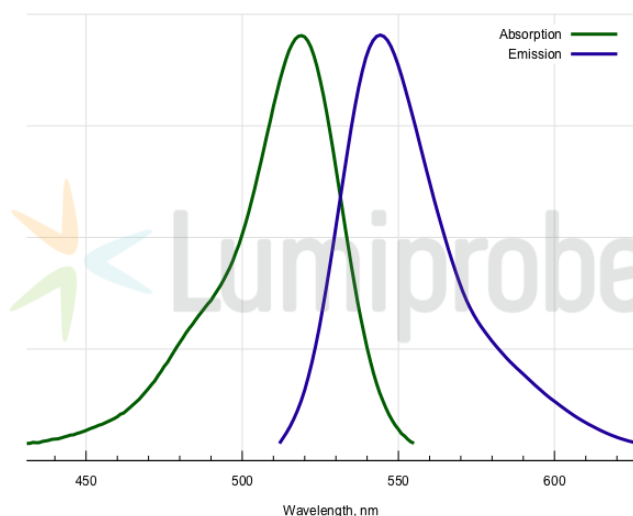
<http://www.lumiprobe.com/p/r6g-nhs-ester-5>

Rhodamine 6G (R6G) is a xanthene dye of rhodamine series that has been used for the labeling of oligonucleotides and DNA for quite a long time. Just like other xanthenes, R6G comes as two isomers, 5- and 6-isomer. Even though their absorption and emission spectra are virtually indistinguishable, the isomers need to be separated to avoid separation of the labeled molecules during their purification, i.e. double HPLC peaks and double spots on electrophoresis.

This is an amine reactive NHS ester derived from a pure 5-isomer of R6G. Rhodamine 6G is very bright (even used as a quantum yield standard, yield 0.95). The dye is soluble in organic solvents, such as DMF, or DMSO. They can be used as co-solvents for the labeling reactions.



**Structure of R6G NHS ester, 5-isomer**



**Absorption and emission spectra for 5-R6G**

### General properties

Appearance:	dark colored solid
Molecular weight:	555.58
Molecular formula:	C <sub>31</sub> H <sub>29</sub> N <sub>3</sub> O <sub>7</sub>
Solubility:	good in DMF, DMSO
Quality control:	NMR <sup>1</sup> H, HPLC-MS (95%)
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:	519
ε, L·mol <sup>-1</sup> ·cm <sup>-1</sup> :	116000
Emission maximum, nm:	546
Fluorescence quantum yield:	0.95
CF <sub>260</sub> :	0.18
CF <sub>280</sub> :	0.17