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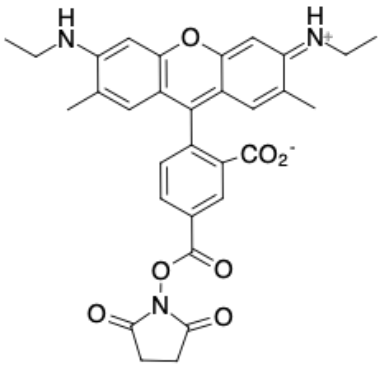
R6G NHS ester, 5-isomer

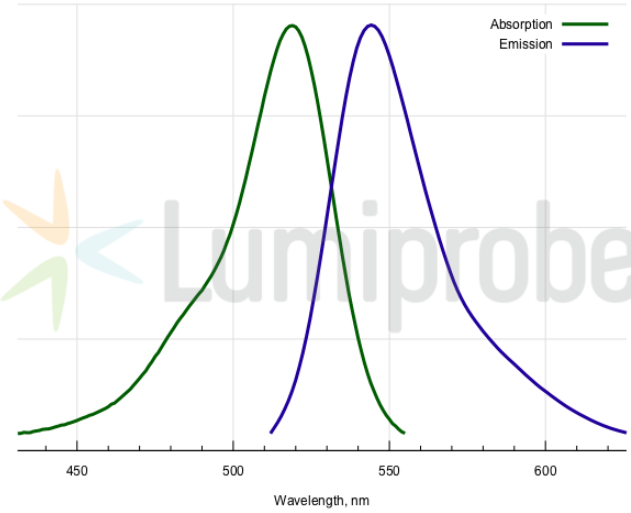
http://de.lumiprobe.com/p/r6g-nhs-ester-5

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.



Struktur von R6G-NHS-Ester, 5-Isomer



Absorptions- und Emissionsspektren von 5-R6G

Allgemeine Eigenschaften

Erscheinungsform:	farbloser Feststoff
Molekülmasse:	555.58
Molekülformel:	$C_{31}H_{29}N_3O_7$
Löslichkeit:	gut in DMF, DMSO
Qualitätskontrolle:	NMR ^1H, HPLC-MS (95%)
Lagerungsbedingungen:	Lagerung: 12 Monate nach Wareneingang bei −20 °C im Dunkeln. Transport: bei Raumtemperatur bis zu drei Wochen. Längere Lichteinwirkung vermeiden. Trocken lagern.

Spektrale Eigenschaften

Anregungs-/Absorptionsmaximum / nm:	519
ε / $L \cdot mol^{-1} \cdot cm^{-1}$:	116000
Emissionsmaximum / nm:	546
Fluoreszenz-Quantenausbeute:	0.95
CF_{260}:	0.18
CF_{280}:	0.17