

## UGO 590 NHS ester [equivalent to ATTO 590 NHS ester]

Catalog ID: 111702

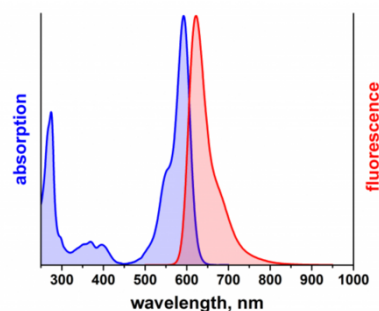
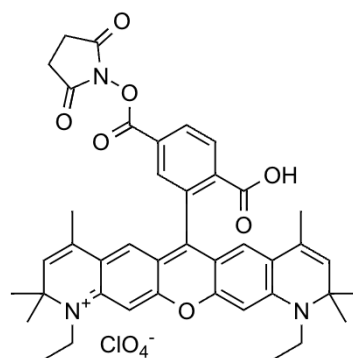
Revised: 2025-01-31

### Description

UGO 590 is a rhodamine-based fluorescent dye known for its strong absorption, high fluorescence quantum yield, and exceptional photostability and thermal stability. It exhibits moderate hydrophilicity and is optimally excited within the 575–610 nm wavelength range. UGO 590 emits in the orange-red region of the visible spectrum, with fluorescence effectively quenched by BHQ<sup>®</sup>-2 dye. This dye is particularly well-suited for advanced applications in single-molecule detection and high-resolution microscopy techniques such as PALM, dSTORM, and STED. Additionally, it is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), FRET, and various other biological assays.

### Chemical Properties

CAS number	670269-33-7
Formula	C <sub>41</sub> H <sub>42</sub> ClN <sub>3</sub> O <sub>11</sub>
Molecular Weight (M+)	688
HPLC Purity	≥95%
λ <sub>abs</sub> (nm)	593
ε <sub>max</sub> (M <sup>-1</sup> cm <sup>-1</sup> )	1.2×10 <sup>5</sup>
λ <sub>fl</sub> (nm)	622
η <sub>fl</sub>	80%
τ <sub>fl</sub> (ns)	3.7
CF <sub>260</sub> = ε <sub>260</sub> /ε <sub>max</sub>	0.39
CF <sub>280</sub> = ε <sub>280</sub> /ε <sub>max</sub>	0.43



### Storage

Upon receipt, store at -20°C in the dark. Protect from light and moisture. When stored as indicated, UGO NHS-esters are stable for at least 3 years.

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

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