

UGO 680 NHS ester [equivalent to ATTO 680 NHS ester]

Catalog ID: 112902

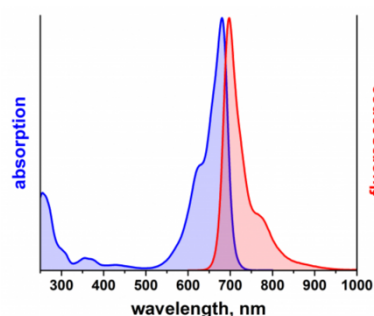
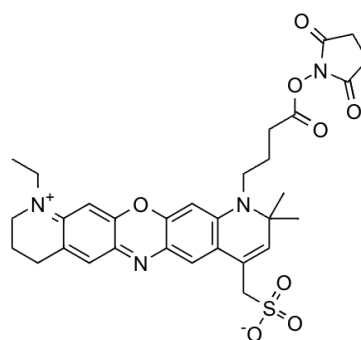
Revised: 2025-01-31

Description

UGO 680 is a far-red fluorescent dye known for its strong absorption, high photo and thermal stability, and excellent aqueous solubility. It is optimally excited within the 645-695 nm wavelength range, making it compatible with the 670 nm line of diode lasers and the 676 nm line of Krypton-Ion lasers. As a zwitterionic compound, UGO 680 remains electrically neutral when conjugated to biomolecules or other substrates. Its strong electron-accepting properties enable efficient fluorescence quenching by electron donors such as guanine and tryptophan. These characteristics make UGO 680 highly suitable for precision applications, including single-molecule detection and super-resolution microscopy techniques like PALM, dSTORM, and STED. Additionally, UGO 680 is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a wide range of other biological assays, establishing it as a versatile and indispensable tool in advanced fluorescence-based research.

Chemical Properties

CAS number	1537182-26-5
Formula	C ₃₁ H ₃₄ N ₄ O ₈ S
Molecular Weight (M+)	623
HPLC Purity	≥95%
λ _{abs} (nm)	681
ε _{max} (M ⁻¹ cm ⁻¹)	1.25×10 ⁵
λ _{fl} (nm)	698
η _{fl}	30%
τ _{fl} (ns)	1.7
CF ₂₆₀ = ε ₂₆₀ /ε _{max}	0.30
CF ₂₈₀ = ε ₂₈₀ /ε _{max}	0.17



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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