

Product number: K8-1357
Product name: Square-680-NHS

General Data

- Molecular Mass:** 669.77
- Solubility:** alcohol, DMF, DMSO, acetone, chloroform
- Insoluble:** water
- Storage:** Store in absence of light, desiccate and refrigerate

Description

- Hydrophobic, amine-reactive fluorescent label containing one reactive NHS-ester group.

Applications

- Covalent labeling of amino-modified lipids and oligonucleotides
- Fluorescence Resonance Energy Transfer (FRET) applications
- Homogeneous Assays

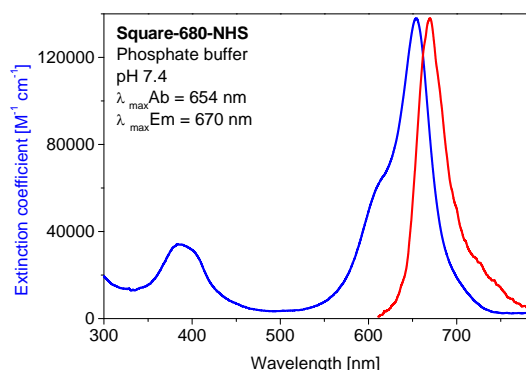
Advantages

- Perfectly suited for excitation with the 380, 404, 635 and 650-nm diode lasers and UV light
- Sensitive; high extinction coefficients and quantum yields of protein conjugates
- Quantum yields increase upon covalent association with biomolecules
- pH-insensitive between pH 3 and pH 10
- High photostability; e.g. compared to fluorescein or Cy5TM
- Low molecular weight — **Square** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of amino-modified amino-modified lipids

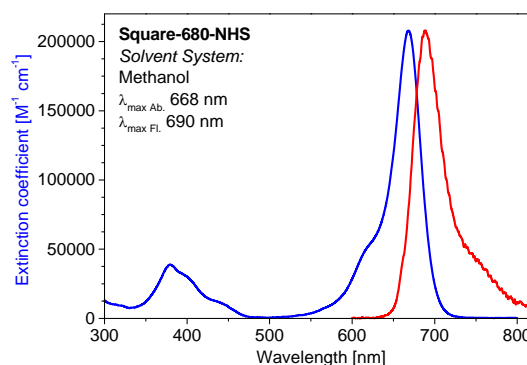
Spectral Data

Solvent	Absorption max. [nm]	Extinction Coefficient [M ⁻¹ cm ⁻¹]	Fluorescence max. [nm] ¹	Quantum Yield [%]
Phosphate buffer pH 7.4	654	138,000	670	1
Chloroform	683 381	202,000 38,000	701	45
Methanol	668		690	10

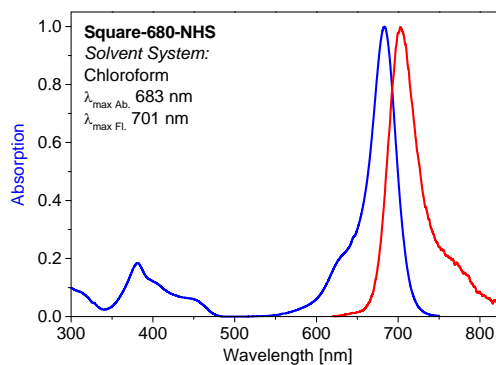
¹ Excitation at 630 nm



Absorption and emission spectrum of **Square-680-NHS** ($c = 1 \mu\text{M}$) in phosphate buffer pH 7.4



Absorption and fluorescence spectra of **Square-680-NHS** in methanol



Absorption and fluorescence spectra of **Square-680-NHS** in chloroform