

General Data

- Molecular Mass:** 968.19
838.95 (protonated)
- Solubility:** Alcohol, chloroform, DMF, DMSO
- Insoluble:** Hexane, toluene
- Storage:** Store out of light, desiccated and refrigerate

Description

- Amine-reactive, non-fluorescent quencher containing one reactive NHS-ester group
- Very broad visible-wavelength absorption spectrum
- Efficient energy transfer acceptor for NIR-fluorescent dyes (Cy5TM, Cy5.5TM, Cy7TM, and Alexa 680TM) in FRET applications

Applications

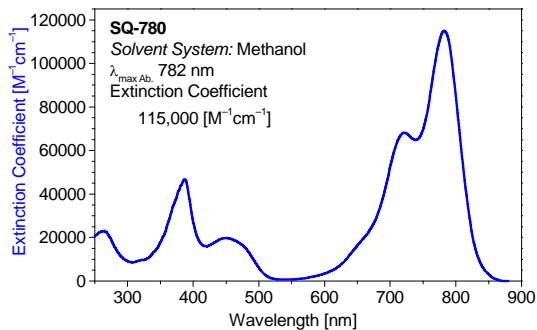
- Covalent labeling of proteins, peptides, amino-modified DNA and amino-modified oligonucleotides
- Energy Transfer (RET) acceptor for molecular beacons and other FRET based applications
- Real-time PCR
- Homogeneous Assays

Advantages

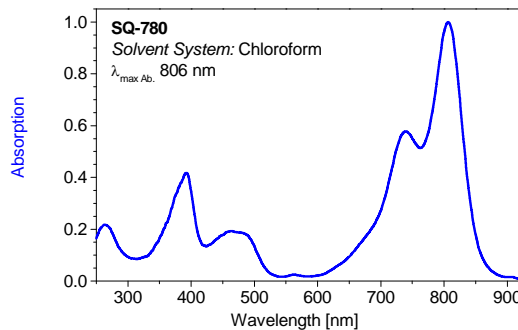
- pH-insensitive between pH 3 and pH 10
- Low molecular weight — **SQ** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of proteins, amino-modified DNA probes and amino-modified oligonucleotides

Spectral Data

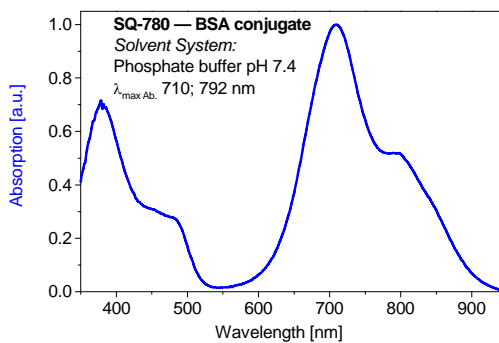
Sample	Absorption Max. [nm]	Extinction Coefficient [M ⁻¹ cm ⁻¹]
Free dye in methanol	782	115,000
Free dye in chloroform	806	
BSA conjugate	710, 792	



Absorption spectrum of **SQ-780** in methanol



Absorption spectrum of **SQ-780** in chloroform



Absorption spectrum of **SQ-780 — BSA conjugate** in phosphate buffer (pH 7.4, Dye-to-protein ratio 0.4)