

## 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 (Cy5<sup>TM</sup>, Cy5.5<sup>TM</sup>, Cy7<sup>TM</sup>, and Alexa 680<sup>TM</sup>) in FRET applications

## Applications

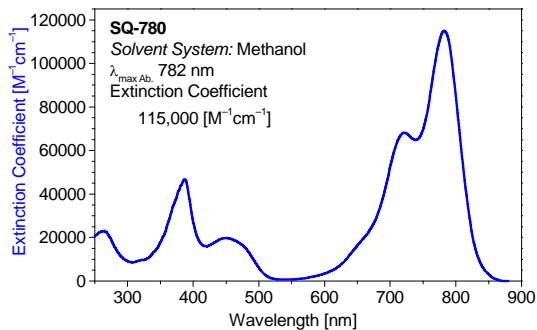
- Covalent labeling of proteins, peptides, amino-modified DNA and amino-modified oligonucleotides
- Energy Transfer (RET) acceptor for molecular beacons and other FRET based applications
- Real-time PCR
- Homogeneous Assays

## Advantages

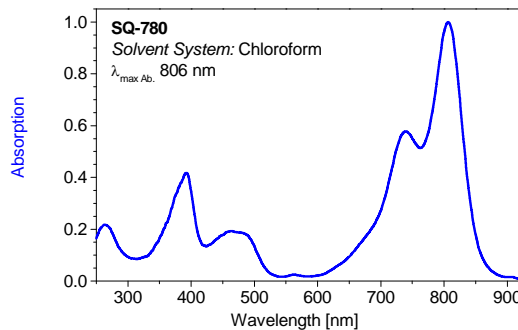
- pH-insensitive between pH 3 and pH 10
- Low molecular weight — **SQ** dyes do not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of proteins, amino-modified DNA probes and amino-modified oligonucleotides

## Spectral Data

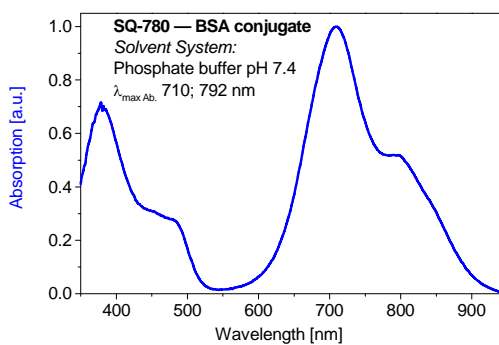
Sample	Absorption Max. [nm]	Extinction Coefficient [M <sup>-1</sup> cm <sup>-1</sup> ]
Free dye in methanol	782	115,000
Free dye in chloroform	806	
BSA conjugate	710, 792	



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)