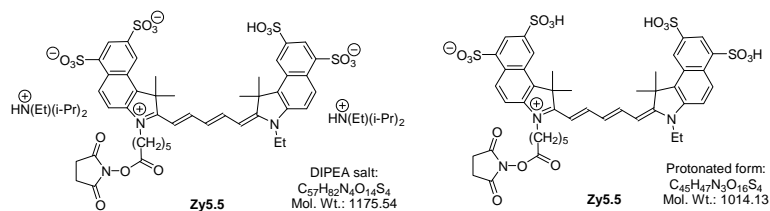


## General Data



**Molecular Mass:** 1175.74  
1014.13 (protonated)  
899.04 (add to biomolecule)

**Solubility:** Water, Alcohol, DMF, DMSO

**Insoluble:** Acetone, Chloroform, Toluene

**Storage:** Store in absence of light, desiccated and refrigerate

## Description

- Highly hydrophilic, amine-reactive label containing one NHS-ester group. Structurally identical with **Cy5.5<sup>TM</sup>** (GE).

## Applications

- Covalent labeling of proteins, amino-modified DNA and amino-modified oligonucleotides.

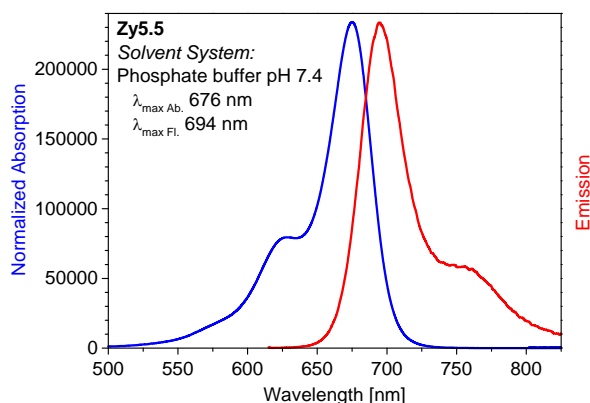
## Spectral Data

**Solvent system:** phosphate buffer, pH 7.4

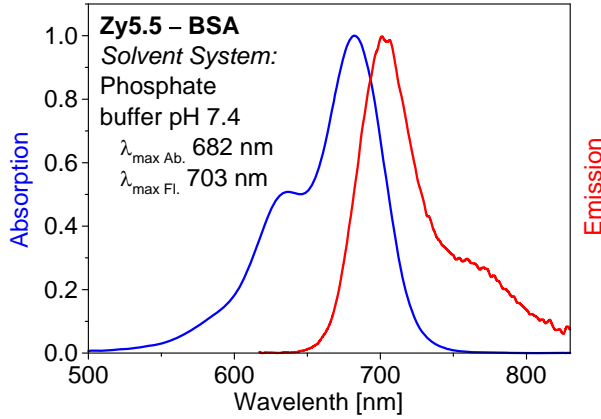
Sample	Absorption max. [nm]	Extinction Coefficient [ $M^{-1}\cdot cm^{-1}$ ]	Fluorescence max. [nm]	Quantum Yield [%]	Fluorescence Lifetime [ns]
Zy5.5	676	190,000 <sup>[1,2]</sup>	694	23 <sup>[1,2]</sup>	1.0 <sup>[2]</sup>
Zy5.5—BSA conjugate, D/P = 1	682		703	15	
Zy5.5—IgG conjugate, D/P = 1	683		698	16	

[1] S.R.Mujumdar, R.B.Mujumdar, C.M.Grant, A.S.Waggoner. Cyanine-labeling reagents: sulfobenzindocyanine succinimidyl esters. Bioconjugate Chem. (1996), 7, 356–362.

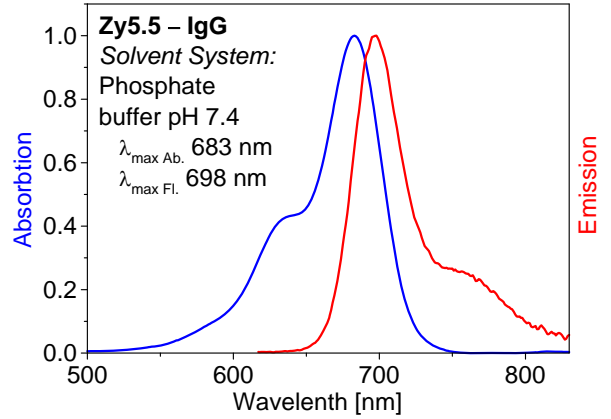
[2] GE Healthcare.



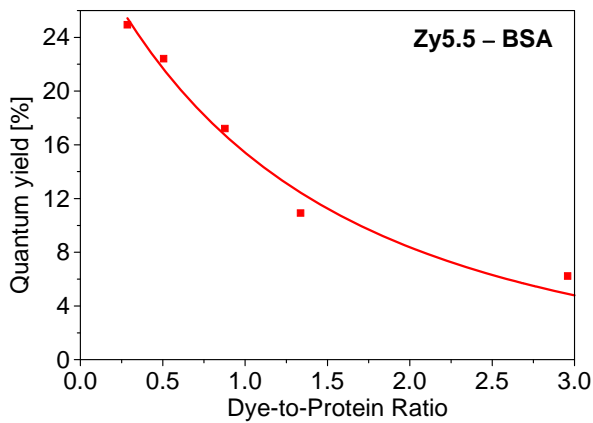
Absorption and emission spectrum of **Zy5.5** in phosphate buffer (pH 7.4)



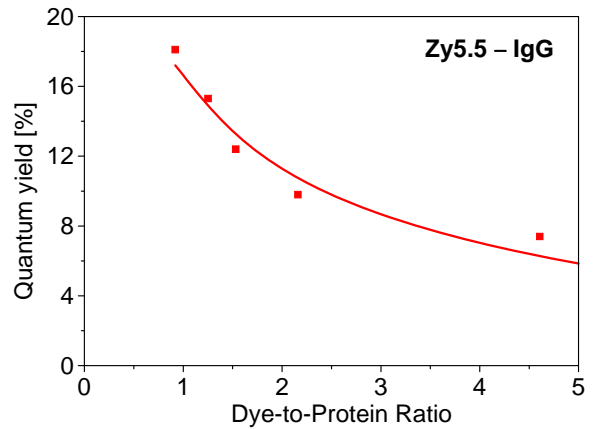
Absorption and emission spectrum of a **Zy5.5 – BSA conjugate** in phosphate buffer (pH 7.4, Dye-to-protein ratio 1.3)



Absorption and emission spectrum of a **Zy5.5 – IgG conjugate** in phosphate buffer (pH 7.4, Dye-to-protein ratio 1.3)



Quantum yield vs. dye-to-protein ratio of **Zy5.5 – BSA conjugates** in phosphate buffer (pH 7.4)



Quantum yield vs. dye-to-protein ratio of **Zy5.5 – IgG conjugate** in phosphate buffer (pH 7.4)