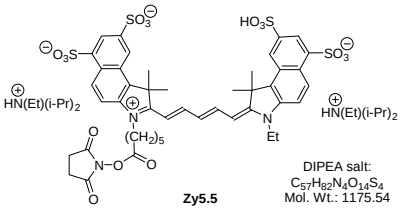
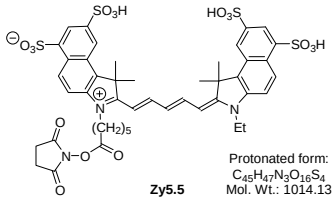
SETA BioMedicals
Fluorescent Tools for BioMedical Applications

http://www.setabiomedicals.com
e-mail: info@setabiomedicals.com

Product number: K8-5422
Product name: Zy5.5-NHS

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**™ (GE).

Applications

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

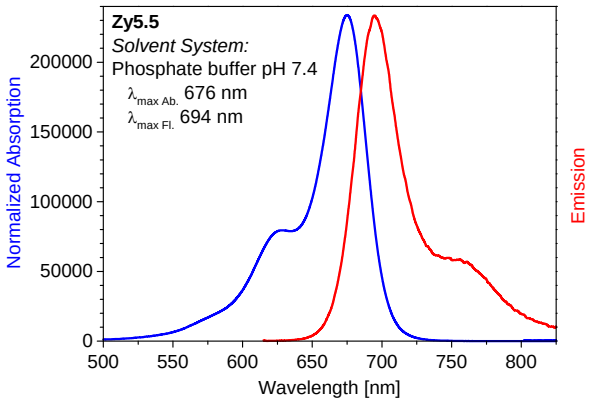
Spectral Data

Solvent system: phosphate buffer, pH 7.4

Sample	Absorption max. [nm]	Extinction Coefficient [M^{-1}·cm^{-1}]	Fluorescence max. [nm]	Quantum Yield [%]	Fluorescence Lifetime [ns]
Zy5.5	676	190,000[1,2]	694	23[1,2]	1.0[2]
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.



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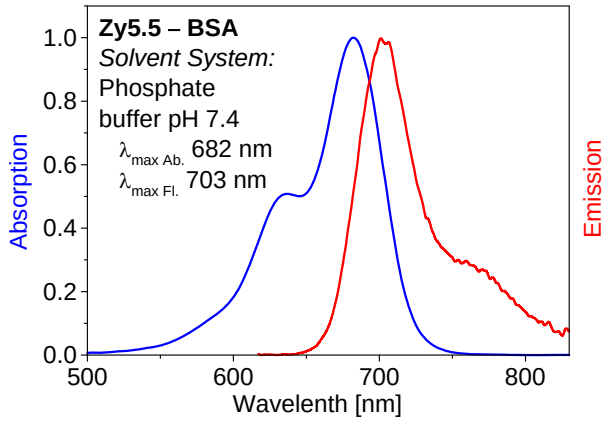
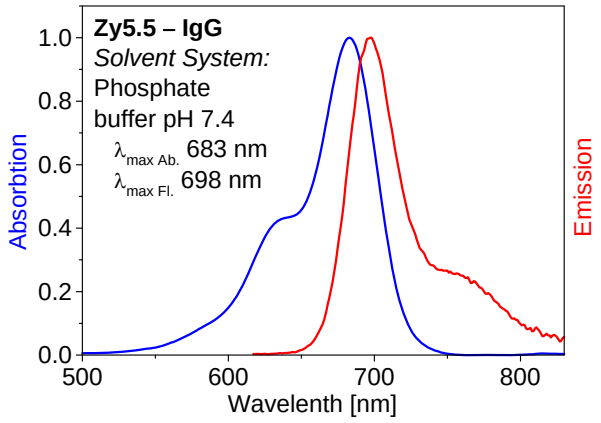
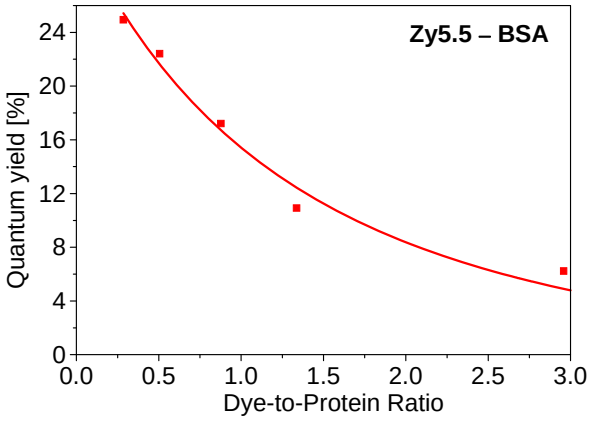
Absorption and emission spectrum of **Zy5.5** in phosphate buffer (pH 7.4)



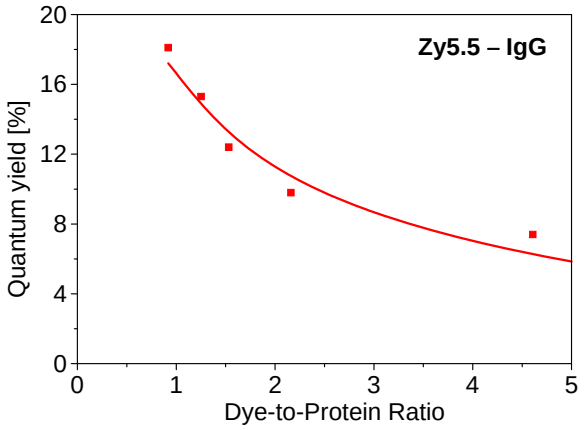
Absorption and emission spectrum of a **Zy5.5 — BSA conjugate** in phosphate buffer (pH 7.4, Dye-to-protein ratio 1.3)



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)