SETA BioMedicals
Fluorescent Tools for BioMedical Applications
http://www.setabiomedicals.com
e-mail: info@setabiomedicals.com

Product number: K8-3335
Product name: Seta-555-NHS

General Data

Molecular Mass: 986.08 (protonated form)

Solubility: Water, Alcohol, DMF, DMSO

Insoluble: Acetone, Chloroform, Toluene

Storage: Store in absence of light, desiccate and refrigerate

Description

- **Seta-555-NHS** (**K8-3335**) is highly hydrophilic, amine-reactive fluorescent label containing one reactive NHS-ester group with almost identical absorption and emission as **Cy3™** or **Alexa Fluor™ 555** and can therefore be used with these filter sets. It combines high photostability and brightness.

Applications

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

Advantages

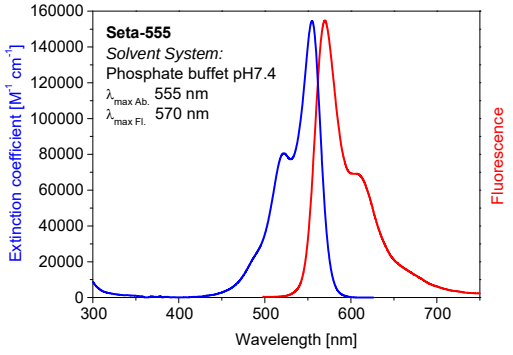
- Perfectly suited for excitation with the 532-nm laser
- Good aqueous solubility: this label does not alter the solubility of the protein conjugate
- Low molecular weight: **Seta-555** does not add substantial mass to the conjugates
- Photostability: Higher photostability as compared to **Alexa Fluor™ 555** or **Cy3**
- Ideal for non-radioactive labeling of proteins, amino-modified DNA probes and amino-modified oligonucleotides

Spectral Data

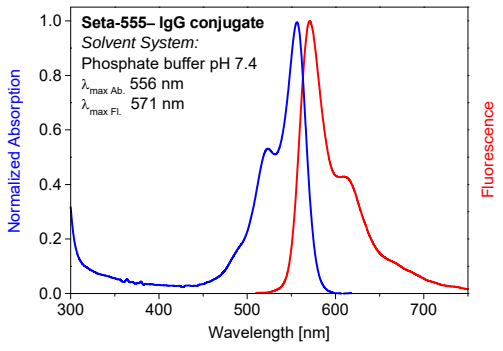
Solvent System: phosphate buffer pH 7.4

Sample	Dye-to-protein Ratio	Absorption max. [nm]	Extinction Coefficient [$M^{-1}cm^{-1}$]	Fluorescence max. [nm]	Quantum Yield[1] [%]
Free dye	—	555	155,000	570	7
IgG conjugate 1	1.0	556		571	13
IgG conjugate 2	9.5	556		572	10

[1] Excitation at 490 nm



Absorption and emission spectrum
of a **Seta-555** in phosphate buffer (pH 7.4)



Absorption and emission spectrum
of a **Seta-555 — IgG conjugate** in phosphate buffer
(pH 7.4, Dye-to-protein ratio ~1.0)

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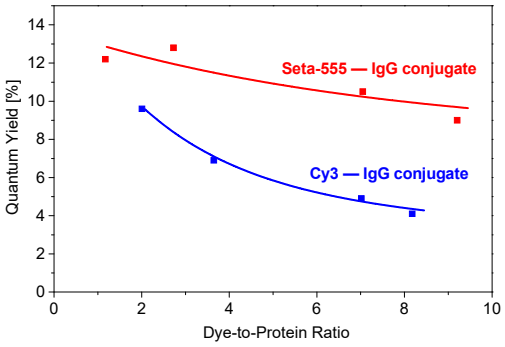
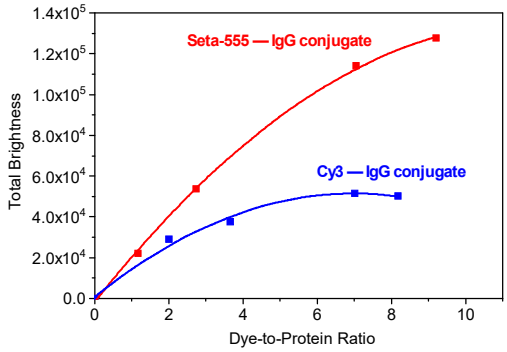


Quantum yield *vs.* dye-to-protein ratio (D/P) of **Seta-555 — IgG conjugates** in phosphate buffer (pH 7.4) as compared to **Cy3** conjugates



Total brightness (Q.Y. x ε x D/P) of **Seta-555 — IgG conjugates** in phosphate buffer (pH 7.4) as compared to **Cy3** conjugates