

Product number: K8-3335

Product name: Seta-555-mono-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-mono-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

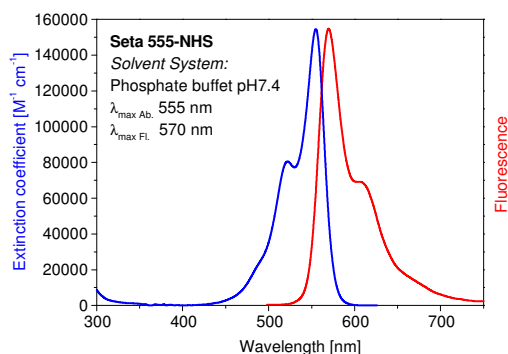
- Perfectly suited for excitation with the 532-nm laser
- **Good aqueous solubility:** this label does not alter the solubility of the protein conjugate
- **Low molecular weight:** **Seta-555** does not add substantial mass to the conjugates
- **Photostability:** Higher photostability as compared to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

Spectral Data

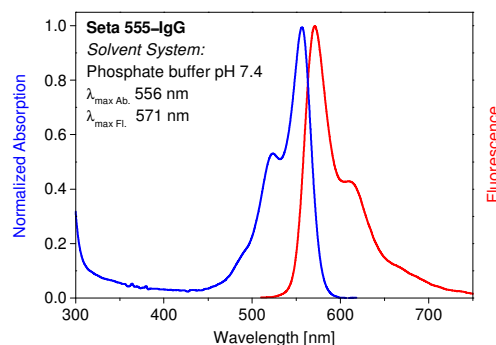
Solvent System: phosphate buffet pH 7.4

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

* Excitation at 490 nm



Absorption and emission spectrum



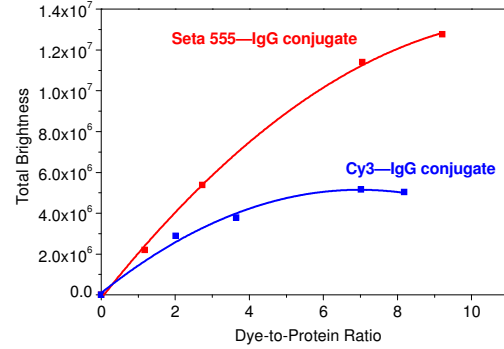
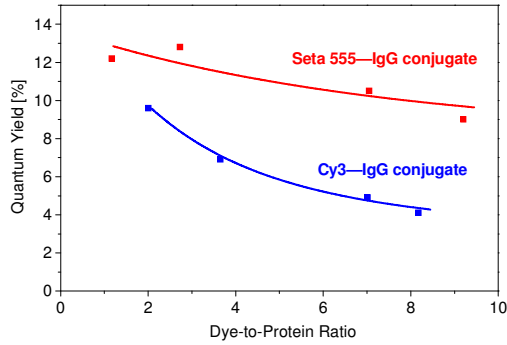
Absorption and emission spectrum

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of a **Seta 555-NHS** in phosphate buffer (pH 7.4)

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



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