

**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

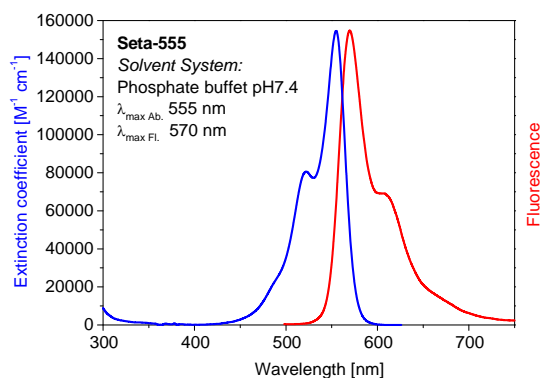
- Perfectly suited for excitation with the 532-nm laser
- Good aqueous solubility:** this label does not alter the solubility of the protein conjugate
- Low molecular weight:** **Seta-555** does not add substantial mass to the conjugates
- Photostability:** Higher photostability as compared to **Alexa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

## Spectral Data

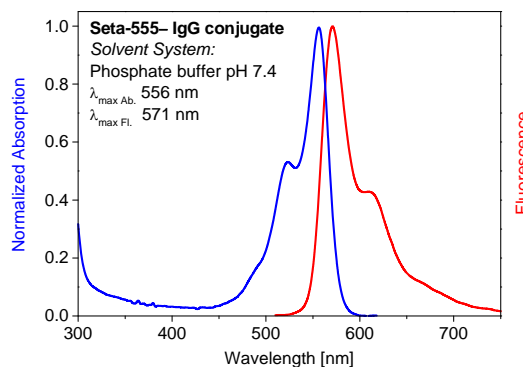
**Solvent System:** phosphate buffer pH 7.4

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

<sup>1</sup> Excitation at 490 nm



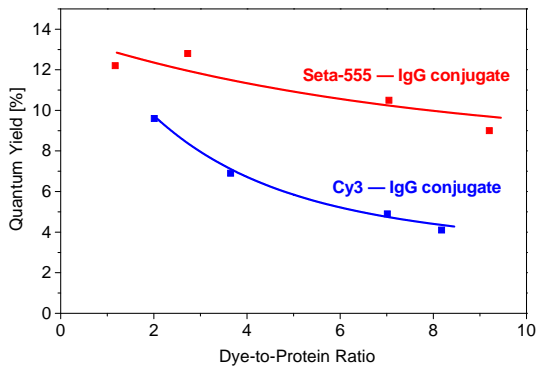
Absorption and emission spectrum of a **Seta-555** in phosphate buffer (pH 7.4)



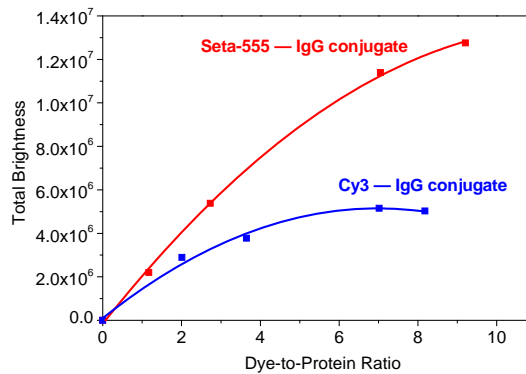
Absorption and emission spectrum of a **Seta-555 — IgG conjugate** in phosphate buffer (pH 7.4, Dye-to-protein ratio ~1.0)

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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  $\epsilon$  x D/P) of **Seta-555 — IgG conjugates** in phosphate buffer (pH 7.4) as compared to **Cy3** conjugates