

**Product number: K8-7038**

**Product name: Seta-750-mono-maleimide**

## General Data

- Molecular Mass:** 1293.64  
1035.15 (protonated form)
- Solubility:** Water, Alcohol, DMF, DMSO
- Insoluble:** Acetone, Chloroform, Toluene
- Storage:** Store in absence of light, desiccate and refrigerate

## Description

**Seta 750-maleimide (K8-7038)** is a hydrophilic, thiol-reactive label containing one maleimide group with almost identical absorption and emission as **Cy7** or **Alexa 750** and can therefore be used with these filter sets. It combines high photostability and brightness. Its extinction coefficient is  $235,000 \text{ M}^{-1}\text{cm}^{-1}$  and the quantum yield (Q.Y.) is about twice as high as that for **Alexa 750**.

## Applications

- Covalent labeling of proteins, peptides, thiol-modified DNA and thiol-modified oligonucleotides
- Fluorescence intensity and fluorescence polarization-based applications
- Resonance Energy Transfer (RET)
- Flow Cytometry
- Immunofluorescence
- Gene Expression
- Homogeneous Assays
- Microarrays

## Advantages

- Perfectly suited for excitation with the 695 nm or 740 nm diode lasers
- Sensitive; high extinction coefficients and high quantum yields (about twice as high as **Alexa 750**)
- pH-insensitive between pH 3 and pH 10
- Good aqueous solubility; this label does not alter the solubility of bioconjugates
- High photostability; e.g. compared to fluorescein, **Cy7** or **Alexa 750**
- Low molecular weight — **Seta-750** does not add substantial mass to the conjugates
- Ideal for non-radioactive labeling of proteins, thiol-modified oligonucleotides and thiol-modified lipids

## Spectral Data

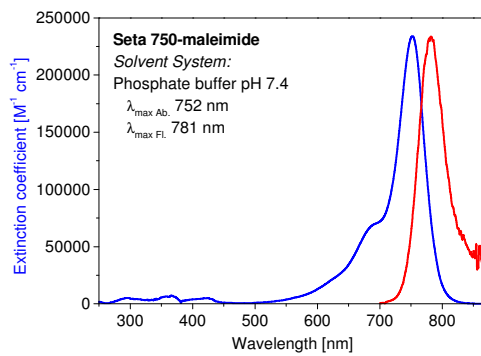
**Solvent System:** phosphate buffer pH 7.4

Sample	Dye-to-protein Ratio	Absorption max. [nm]	Extinction Coefficient [ $\text{M}^{-1}\cdot\text{cm}^{-1}$ ]	Fluorescence* max. [nm]	Quantum Yield [%]
Free dye	-	752	235,000	781	16

\* Excitation at 700 nm

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Absorption and emission spectrum of **Seta 750-maleimide** in phosphate buffer (pH 7.4)