

## Singlet Oxygen Sensor Green Reagent

### S750650

Store at -20°C protect from light for short term, -80°C for long term.

#### Introduction:

The Singlet Oxygen Sensor Green reagent is highly selective for  $^1\text{O}_2$ ; unlike other available fluorescent and chemiluminescent singlet oxygen detection reagents, it does not show any appreciable response to hydroxyl radical ( $\cdot\text{OH}$ ) or superoxide ( $\cdot\text{O}_2^-$ ). This new singlet oxygen indicator initially exhibits weak blue fluorescence, with excitation peaks at 372 and 393 nm and emission peaks at 395 and 416 nm. In the presence of singlet oxygen, it emits a green fluorescence similar to that of fluorescein (excitation/emission maxima ~504/525 nm). The Singlet Oxygen Sensor Green reagent is supplied as a cell impermeant derivative.

The Singlet Oxygen Sensor Green reagent should be useful for detecting  $^1\text{O}_2$  in aqueous solutions. It can also potentially be employed to assess the efficacy of free radical scavengers, which are frequently used to improve the flavor and nutritional quality of foods. Note that the Singlet Oxygen Sensor Green reagent can also become activated at alkaline pH or in the presence of certain solvents, including (but not limited to) acetonitrile, DMSO, DMF, and acetone. Its fluorescent product may also degrade over time in some solutions. However, with proper controls, the intensity of the green-fluorescent signal can be correlated with  $^1\text{O}_2$  concentration, without significant interference from other reactive oxygen species.

#### Ordering Information:

Cat No.	Components	S750650-100 $\mu\text{g}$	Storage
S750650	Singlet Oxygen Sensor Green Reagent	100 $\mu\text{g}$	-80°C. Protect from light

#### Solution Assays:

Singlet Oxygen Sensor Green reagent is intended for use in aqueous environments. The optimal dilution buffer and working concentration should be determined empirically; a suggested starting concentration range is 1-10  $\mu\text{M}$ .