

## Nuclear Orange™ DCS1

### Ordering Information

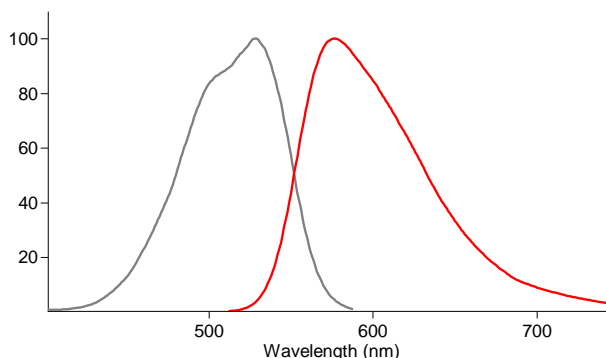
Product Number: 17551 (5 mM)

### Storage Conditions

Keep at -20 °C and avoid exposure to light

### Spectral Properties

Ex/Em = 528/576 nm



**Figure 1.** Excitation and emission spectra for the Nuclear Orange™ DCS1 bound to DNA in PBS (pH 7.4).

### Biological Applications

Our Nuclear Orange™ DCS1 is a fluorogenic, DNA-selective and cell impermeant orange fluorescent dye for analyzing DNA content in dead cells. The Nuclear Orange™ DCS1 has its fluorescence significantly enhanced upon binding to double-stranded DNA. It can be used in fluorescence imaging, microplate and flow cytometry applications. This DNA-binding dye might be used for multicolor analysis of dead cells.

### Sample Protocol for Staining Cells

*Caution: The following protocol can be adapted for most cell types. Growth medium, cell density, the presence of other cell types and factors may influence staining. Residual detergent on glassware may also affect staining of many organisms, and cause brightly stained material to appear in solutions with or without cells present.*

1. Add Nuclear Orange™ DCS1 (2 to 10  $\mu$ M) into the fixed, dead or apoptotic cells (either suspension or adherent) and stain the cells for 15 to 60 minutes. In initial experiments, it may be best to try several dye concentrations to determine the optimal concentration that yields the desired result. High dye concentration tends to cause nonspecific staining of other cellular structures.
2. Directly analyze the cellular staining with fluorescence microscopy, fluorescence microplate reader, or flow cytometry.

**Disclaimer:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact our technical service representative for more information.