

Product Number

926-30000

(5 x 50 µL)

Storage: -20 °C

February 17, 2017

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Document # 988-13225

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ROSstar™ 650 Probe

Product Description

ROSstar 650 is a hydrocyanine-based¹⁻²⁵ probe designed to detect intracellular reactive oxygen species (ROS), specifically superoxide and hydroxyl radicals.^{1,4} The cell-permeable probe can be used to detect oxidative stress in cells using fluorescence imaging¹⁻¹⁷, microplate fluorometry^{18,19}, flow cytometry²⁰, *ex vivo* tissue section¹⁻¹³, and immunohistochemical staining⁴⁻¹⁰, when using instrumentation with appropriate excitation and detection capabilities.

Properties

Concentration: 2.5 mM in DMSO

Excitation Maxima: 638 nm

Emission Maxima: 656 nm

Form: Liquid

Pack Size: 5 x 50 µL

Appearance: Colorless

Form: Liquid

Storage and Handling

Protect from light. Upon receipt, immediately store at -20 °C. Protect from light and moisture. This product is stable for up to 3 months when stored unopened.

Precautions

- ROSstar 650 is light- and air-sensitive
- Open just before use - **Discard unused material once tube has been opened.**

General Guidelines for Use

- The recommended concentration of ROSstar 650 for cell culture and *ex vivo* ROS imaging is 25 - 100 µM.
The concentration may need further optimization, depending upon cell types, ROS inducer used, instrument, and applications.
NOTE: Use diluted probe immediately to avoid oxidation.
- Image 15 - 30 minutes after incubation with ROSstar 650.
Time of incubation may need further optimization, depending upon factors including cell types, ROS inducer used, instrument, and applications.
- An excitation laser wavelength of 633 nm and an emission filter between 650-680 nm is recommended for use with confocal microscopes.
- For further discussion and applications of hydrocyanines in imaging of ROS, see references 1 - 25.

Hydrocyanine References

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