

Product Number
926-20000 (5 x 50 µL)

Storage: -20 °C

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ROSstar™ 550 Probe

Product Description

ROSstar 550 is a hydrocyanine-based¹⁻¹⁹ probe designed to detect intracellular reactive oxygen species (ROS), specifically superoxide and hydroxyl radicals^{1,5}. The cell-permeable probe can be used to detect oxidative stress in cells using fluorescence imaging¹⁻¹⁷, microplate fluorometry^{18,19}, and *ex vivo* tissue section¹⁻¹³ when using instrumentation with appropriate excitation and detection capabilities.

Properties

Concentration: 2.5 mM in DMSO

Excitation Maxima: 546 nm

Emission Maxima: 561 nm

Form: Liquid

Pack Size: 5 x 50 µL

Appearance: Colorless

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 550 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 550 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 550.
Time of incubation may need further optimization, depending upon factors including cell types, ROS inducer used, instrument, and applications.
- An excitation laser wavelength of 543 nm and an emission filter between 550 and 580 nm is recommended for use with confocal microscopes.
- For further discussion and applications of hydrocyanines in imaging of ROS, see references 1 - 19.

Hydrocyanine References

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