ROS-ID® Superoxide detection kit

Enzo Life Sciences' ROS-ID® Superoxide detection kit is designed to directly monitor real time superoxide production in live cells using fluorescence microscopy and/or flow cytometry. A major component of the kit, Superoxide Detection Reagent (Orange), is a cell-permeable probe that reacts specifically with superoxide, generating an orange fluorescent product. The kit is not designed to detect reactive peroxide, hydroxyl, peroxynitrite, chlorine or bromine species, as the fluorescent probe included is relatively insensitive to these analytes. Upon staining, the fluorescent product generated can be visualized using a wide-field fluorescence microscope equipped with a standard orange (e.g., 550/620 nm) fluorescent cube, or cytometrically using any flow cytometer equipped with a blue (488 nm) laser. The Superoxide Detection Kit contains sufficient reagents for at least 200 microscopy assays or 50 flow cytometry assays using live cells (adherent or in suspension).

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Ordering Information

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ENZ-51012	1Kit

Manuals, SDS & CofA

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- Directly monitors global levels of superoxide in live cells by fluorescence microscopy or flow cytometry
- High sensitivity, specificity and accuracy for live cell studies
- Compatible with major components of tissue culture media (phenol red, FBS and BSA)
- Complete set of reagents, including ROS inducer and scavenger

Handling & Storage

Use/Stability	With proper storage, the kit components are stable up to the date noted on the product label. Store kit at -20°C in a non-frost free freezer, or -80°C for longer term storage.
Handling	Protect from light. Avoid freeze/thaw cycles.
Short Term Storage	-20°C
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	Flow Cytometry, Fluorescence microscopy, Fluorescent detection, HTS
Application Notes	This kit is designed to directly monitor real time superoxide production in live cells using fluorescence microscopy and/or flow cytometry.
Contents	Superoxide Detection Reagent (Orange), 300 nmoles ROS Inducer (Pyocyanin), 1 µmole ROS Inhibitor (N-acetyl-L-cysteine), 2 x 10 mg Wash Buffer Salts, 1 pack
Quality Control	A sample from each lot of ROS-ID® Superoxide detection kit is used to stain HeLa cells using the procedures described in the user manual. The stained cells are analyzed using a wide-field fluorescence microscope equipped with standard orange (e.g., 550/620 nm) fluorescent cube. The following results are obtained: ROS positive control samples induced with Pyocyanin exhibit bright orange fluorescence in the nucleus. Cells pretreated with the ROS inhibitor don’t demonstrate any orange fluorescence signal upon induction.
Quantity	200 fluorescence microscopy assays or 50 flow cytometry assays.

Technical Info / Product Notes

The ROS-ID® Superoxide detection kit is a member of the CELLESTIAL® product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLESTIAL® reagents and kits are optimal for use in demanding imaging applications, such as confocal microscopy, flow cytometry and HCS, where consistency and reproducibility are required.

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