

# ROS/RNS DETECTION

ROS/RNS Detection Kit

ENZ-51001

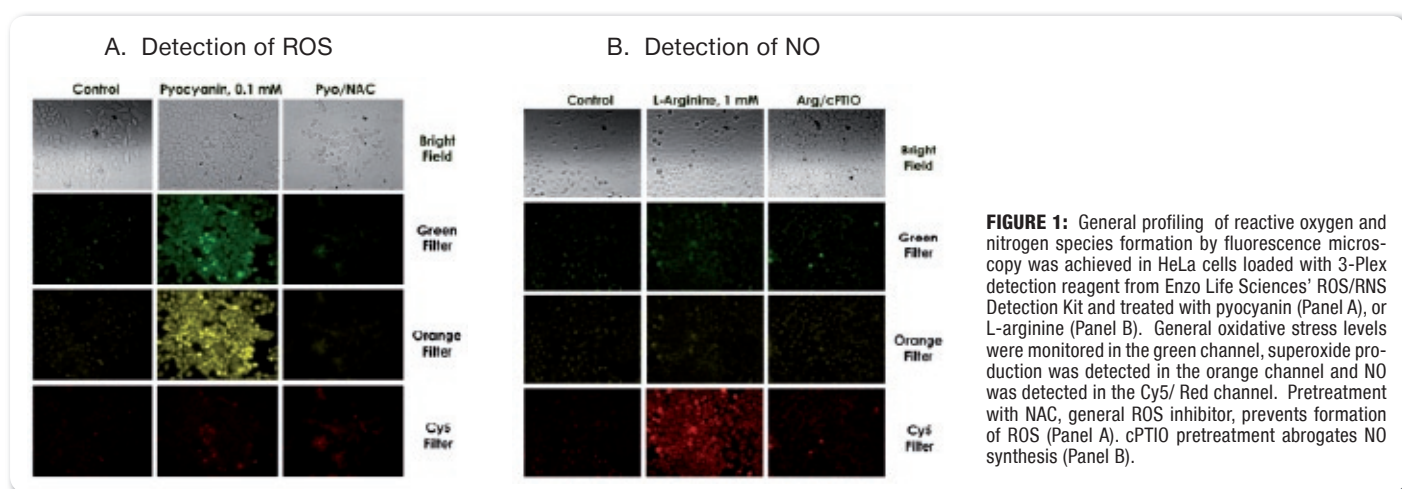
200 Reactions

HIGHLIGHT

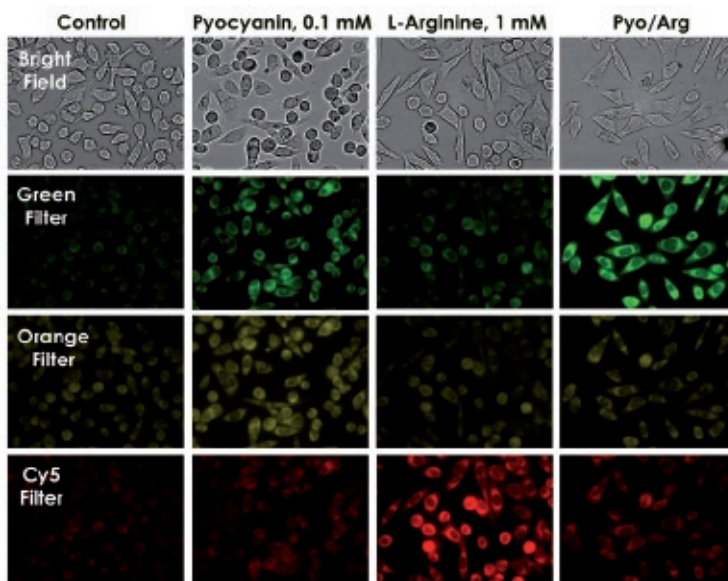
- Directly monitors reactive oxygen and/or nitrogen species (ROS/RNS) in live cells
- Discriminates among superoxide, nitric oxide and peroxynitrite
- High sensitivity, specificity and accuracy for live cell studies
- Compatible with major components of tissue culture media (phenol red, FBS and BSA)
- Complete set of reagents, including ROS/RNS inducers and scavengers
- Stringently manufactured, to control and eliminate non-specific assay artifacts

Free radicals and other reactive species play seminal roles in many physiological and pathophysiological processes. Once produced within a cell, free radicals can damage a wide variety of cellular constituents, including proteins, lipids and DNA. However, at lower concentrations these very same agents may serve as second messengers in cellular signaling. Information-rich methods are required to quantify the relative levels of various reactive species.

The ROS/RNS Detection Kit enables simultaneous detection of different reactive species. Through the combination of three specific fluorescent probes, the kit provides a simple and specific assay for the real-time measurement of free nitric oxide (NO) and, by extension, nitric oxide synthase (NOS) activity, as well as global levels of reactive oxygen species (ROS), and specifically superoxide in living cells.



HeLa Cells Loaded with ROS/RNS 3-Plex Detection Reagent  
for 2 h, 37°C and Induced for 20 min, 37°C



**FIGURE 2:** Representative experiment demonstrating peroxynitrite and NO generation in HeLa cells using the ROS/RNS Detection Kit. The analysis demonstrates that combined treatment with L-arginine and pyocyanin generates peroxynitrite (green fluorescence), due to the reaction of NO with superoxide, but little NO (red fluorescence).

## Related Products

Product	Prod. No.	Size
Red Hydrogen Peroxide Assay Kit	ENZ-51004	500 Reactions
Luminol	ENZ-52354	1 g

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