



Fluoro H₂O₂TM

Fluorescent Hydrogen peroxide/ Peroxidase Detection Kit

Key Benefits

- Non-radioactive - Quick 10 minute assay.
- Can monitor multiple time points to follow kinetics.
- dual mode, can detect H₂O₂ or peroxidase activity.
- One-step, no wash assay.
- Adaptable for High Throughput format
- Non-destructive cell based assay allows monitoring of additional parameters.

Assay Principle

The Fluoro H₂O₂ detection kit utilizes a non-fluorescent detection reagent to measure H₂O₂. H₂O₂ oxidizes the detection reagent in a 1:1 stoichiometry to produce a fluorescent product resorufin. This oxidation is catalyzed by Peroxidase in a homogeneous no wash assay system.

The detection reagent can be utilized to measure H₂O₂ release from cells or enzyme coupled reactions (1-7)

Reaction:

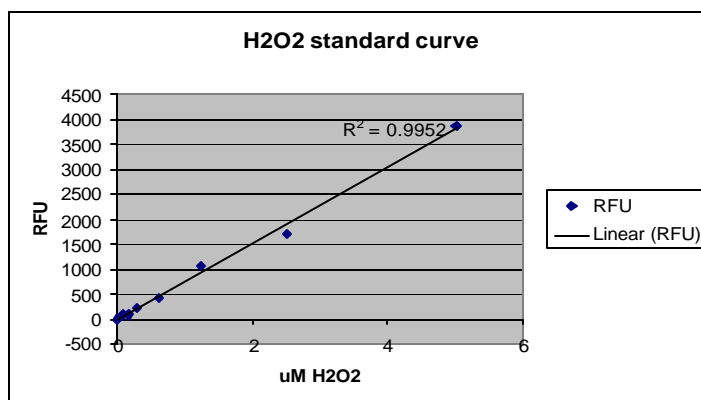
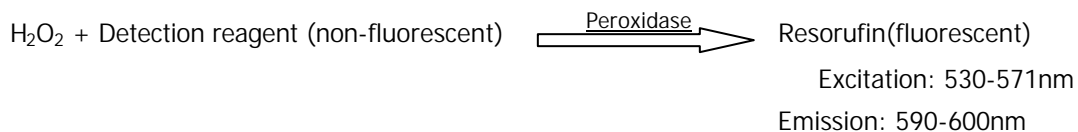


Figure 1. Hydrogen Peroxide titrated in 1X reaction Buffer and measured using the Fluoro H₂O₂ Kit.

Catalog #	Size	Price (US\$)
FLOH 100-3	500	215

References:

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2. J. G. Mohanty, Jonathan S. Jaffe, Edward S. Schulman and Donald G. Raible. A highly sensitive fluorescent micro-assay of H₂O₂ release from activated human leukocytes using a dihydroxyphenoxazine derivative. *J. Immunol Methods* 202, 133 (1997).
3. Tatyana V. Votyakova and Ian J. Reynolds. Membrane Potential dependent and -independent production of reactive oxygen species by rat brain mitochondria. *J Neurochem* 79, 266 (2001).
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5. Samantha C. Richer and W.C.L. Ford. A critical investigation of NADPH oxidase activity in human spermatozoa. *Mol Hum Reprod* 7, 237 (2001).
6. William G. Gutheil, Miglena E. Stefanova and Robert A. Nicholas. Fluorescent Coupled Enzyme Assays for Γ -Alanine: Application to Penicillin-Binding Protein and Vancomycin Activity Assays. *Anal Biochem* 287, 196 (2000).
7. Dominik Peus, Remus A. Vasa, Astrid Beyerle, Alexander Meves, Carsten Krautmacher and Mark R. Pittelkow. UVB Activates ERK1/2 and p38 Signaling Pathways via Reactive Oxygen Species in Cultured Keratinocytes. *J Invest Dermatol* 112, 751 (1999).

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