

ReadiUse™ hydrogen peroxide solution *50 mM calibrated and stabilized solution*

Ordering Information

Product Number: 11004 (50 mM, 5 x 10 mL)

Storage Conditions

Keep at -20 °C. Avoid exposure to light.

Chemical and Physical Properties

Molecular Weight: 34.01

Appearance: Clear colorless liquid.

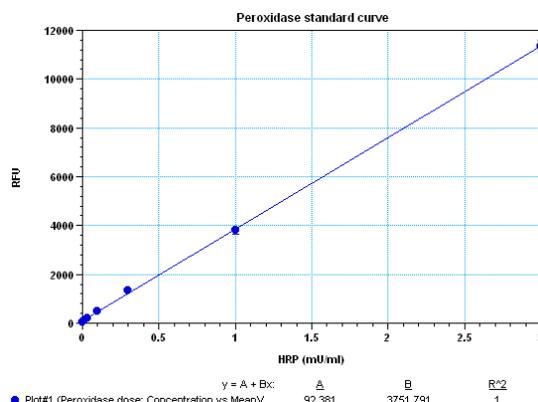
Biological Applications

Compared to other commercial hydrogen peroxide solutions, this formulated hydrogen peroxide solution is much more stable. It is calibrated to ensure more reproducible peroxidase-based assays.

Sample Protocol for Measuring Peroxidase in Solution

The following procedure can be adapted for most peroxidase and hydrogen peroxide based assays. In initial experiments, it may be best to try several hydrogen peroxide solutions over the entire suggested range to determine the concentration that yields optimal peroxidase.

- 1 Prepare a peroxidase reaction mixture with an appropriate hydrogen peroxide substrate concentration and 50 to 500 μ M hydrogen peroxide.
- 2 Add equal volume of peroxidase reaction mixture and peroxidase standards and peroxidase-containing samples.
- 3 Incubate the reaction for 15 to 30 minutes at room temperature, protected from light.
- 4 Monitor the fluorescence or absorbance with appropriate instruments.



HRP dose response was measured with the Amplite™ ADHP (Cat#11000), and ReadiUse™ hydrogen peroxide solution (cat# 11004).

References

1. Fung KK, Chan CP, Renneberg R. (2009) Development of enzyme-based bar code-style lateral-flow assay for hydrogen peroxide determination. *Anal Chim Acta*, 634, 89.
2. Lee CW, Chen YC, Ostafin A. (2009) The accuracy of Amplex Red assay for hydrogen peroxide in the presence of nanoparticles. *J Biomed Nanotechnol*, 5, 477.
3. Johnston PA, Soares KM, Shinde SN, Foster CA, Shun TY, Takyi HK, Wipf P, Lazo JS. (2008) Development of a 384-well colorimetric assay to quantify hydrogen peroxide generated by the redox cycling of compounds in the presence of reducing agents. *Assay Drug Dev Technol*, 6, 505.

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