Signal Guard™ 10X Rapid HRP reaction stopping solution

Catalog number: 11019
Unit size: 0.5 mL

Component	Storage	Amount (Cat No. 11019)
Signal Guard™ 10X Rapid HRP reaction stopping solution	Freeze (< -15 °C)	0.5 mL

OVERVIEW

Signal Guard™ 10X rapid HRP reaction stopping solution is designed to rapidly terminate peroxidase-mediated reactions. HRP-based assays are widely used in research and diagnostics. It is critical to ensure that HRP-coupled enzyme tests can be stopped at the desired time to have a highly reproducible and robust test, which requires a robust and fast HRP stopping reagent. AAT Bioquest developed the Signal Guard™ rapid HRP reagent to instantly stop peroxidase-based reactions. Most commercially available HRP stopping solutions are based on the competitive inhibition of the HRP, thus they are slow and ineffective. The Signal Guard™ rapid HRP stopping reagent disrupts the HRP redox cycle, which makes it versatile across a spectrum of HRP substrates. It is compatible with both chromogenic and fluorogenic HRP substrates.

PREPARATION OF WORKING SOLUTION

Preparation of Working solution (1X)

1. Prepare a working solution by adding 100 µL of Signal Guard™ 10X Rapid HRP reaction stopping solution to 900 µL of PBS or a buffer of your choice.

   Note: For optimal performance, use the working solution within a few hours of preparation.

   Note: 10 mL of working solution is enough for 100 tests.

SAMPLE EXPERIMENTAL PROTOCOL

Sample Experimental Protocol

1. For biochemical assays requiring an in-solution stop, add an equal volume of Signal Guard™ 1X Rapid HRP Reaction Stopping Working Solution to each well at the desired time point. Incubate at room temperature for 5 minutes, then proceed with the next step of the assay.

   For example, if each well contains 100 µL of assay mixture, add 100 µL of the 1X working solution to achieve a 1:1 ratio.

2. For tissue samples, add 100 µL volume of Signal Guard™ 10X Rapid HRP reaction stopping working solution (1X) directly onto the sample to ensure complete coverage. Incubate at 60 °C for 60 minutes, then wash thoroughly with PBS before proceeding to the next steps.

EXAMPLE DATA ANALYSIS AND FIGURES

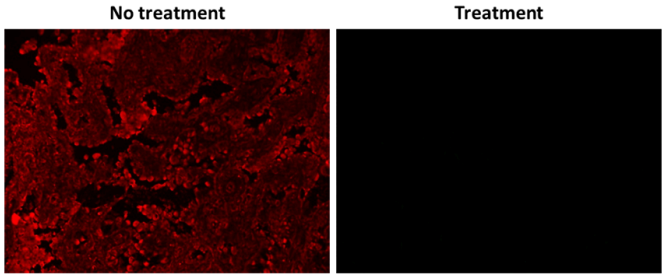

Figure 1. Formalin-fixed, paraffin-embedded (FFPE) human lung tissue sections were immunolabeled with CD4-XFD488 mAb, followed by incubation with HRP-conjugated goat anti-XFD488 IgG. To inhibit HRP enzymatic activity, sections were treated with Signal Guard™ 10X Rapid HRP Reaction Stopping Solution. Fluorescence was then developed using iFluor® 647 styramide (Cat. 45045) and visualized using a Cy5 filter set. Tissue sections pre-treated with Signal Guard™ prior to styramide application exhibited no detectable signal (Right), in contrast to untreated sections (Left), demonstrating effective inhibition of HRP activity by the stopping solution.

DISCLAIMER

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