Signal Guard™ HRP reaction stopping reagent

Catalog number: 11020
Unit size: 500 Tests

Component	Storage	Amount (Cat No. 11020)
Signal Guard™ HRP Reaction Stopping Reagent	Minimize light exposure, Freeze (< -15 °C)	500 Tests

OVERVIEW

HRP coupling reactions provide sensitive biomolecular assays based on hydrogen peroxide- generating enzyme systems linked to peroxidase- mediated oxidation. Fluorogenic HRP substrates are preferred to use for enhancing assay sensitivities. Among them, the most commonly used HRP substrates include ADHP (also called Amplex® Red, #11000), Amplex® UltraRed and Amplite® Red. Typically, detection reactions are performed in microplate wells and are initiated by adding a fluorogenic HRP substrate, resulting in a continuous fluorescence increase. It is critical to ensure that the timing of the standard and unknown sample measurements is the same. Our Signal Guard™ HRP reaction stopping reagent provides convenience and control by allowing the fluorescence signal-generating reaction to be terminated at a user-determined time point. After addition of the stop reagent, the fluorescence signal remains stable. The Signal Guard™ HRP reaction stopping reagent is designed for use in conjunction with ADHP (Amplex® Red), Amplite® and Amplex®UltraRed fluorogenic substrates. Under the same conditions, Signal Guard™ HRP reaction stopping reagent significantly outperforms the Amplex® Red/UltraRed Stop Reagent (#A33855) from ThermoFisher. Our Signal Guard™ HRP reaction stopping reagent can also be used in other HRP reaction systems.

AT A GLANCE

Important Note

Thaw each kit component at room temperature before starting the experiment.

PREPARATION OF STOCK SOLUTIONS

Unless otherwise noted, all unused stock solutions should be divided into single-use aliquots and stored at -20 °C after preparation. Avoid repeated freeze-thaw cycles

Signal Guard™ HRP Reaction Stopping Reagent (20X)

Add 500 µL of ddH2O to Signal Guard™ HRP reaction stopping reagent vial and mix well.

Note Aliquot in small quantites and store at -20 °C in dark plac and avoid light.

PREPARATION OF WORKING SOLUTION

Signal Guard™ HRP Reaction Stopping Reagent (1X)

Add 50 µL of Signal Guard™ HRP reaction stopping reagent into 950 µL ddH_2O and mix well.

Note Prepare the working solutions freshly as needed, and avoid light.

SAMPLE EXPERIMENTAL PROTOCOL

At the desired stopping time point, add 20 µL of Stop Reagent solution (1X) per 100 µL volume in each microplate well.

Note: For other reaction volumes, adjust the addition of 1X Stop Reagent proportionally (e.g., add 5 µL to a 25 µL reaction volume). The 1X stop reagent should be added to all wells, including any reagent controls without HRP.

Note: The time-dependent fluorescence signal increase will terminate immediately, and the fluorescence signal level should remain stable for at least 5 hours.

EXAMPLE DATA ANALYSIS AND FIGURES

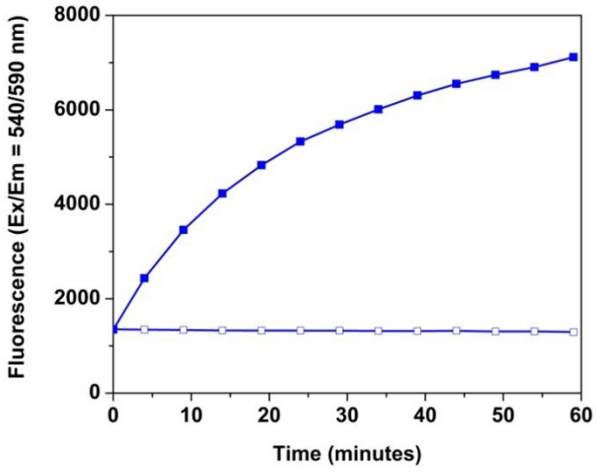

Figure 1. Application of HRP Reaction Stop Solution on HRP coupled glucose detection reaction. Two parallel reactions containing 15 µM Glucose were initiated by adding 50 µL assay mixture containing: 0.5mU/mL HRP, Amplex® Red, and 0.5mU/ml Glucose Oxidase. Reactions were incubated at room temperature for 5 mins, and then 20 µL 1X Stop Reagent was added to one reaction, and 20 µL dd H2O to the other reaction. The plots demonstrated that the reaction is completely inhibited by Signal Guard™ HRP Reaction Stopping Reagent.

DISCLAIMER

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