

Signal Guard™ Phosphatase Reaction Stopping Solution

Ordering Information:

Product Number: 11622 (100 mL)

Storage Conditions:

Keep at 4 °C
Avoid exposure to light

Introduction

Alkaline and acid phosphatases are the hydrolase enzymes responsible for dephosphorylation of molecules such as nucleotides, proteins and alkaloids under alkaline and acidic conditions, respectively. Some phosphatase assays and tests require the phosphatase reactions to be stopped for further analysis using the stop solutions. Our Signal Guard™ phosphatase reaction stopping solution is a ready to use reagent that provides a convenient tool for terminating fluorescence and colorimetric signal-generating phosphatase reactions at a user-determined time point, and also keep the fluorescence or colorimetric signal stable for up to 18 hours. The Signal Guard™ phosphatase reaction stopping solution is optimized and compatible with alkaline, acid and protein phosphatase. Compared to other commercial phosphatase stopping reagents, our Signal Guard™ phosphatases reaction stopping solution is nearly neutral and mild. It is compatible with a vast majority of colorimetric and fluorimetric phosphatase substrates while the stop reagents from other vendors are not compatible with most of fluorescence-based phosphatase assays due to their extremely high pH.

Assay Protocol for one 96-well plate

1. Warm the Signal Guard™ phosphatase reaction stopping solution to room temperature.
2. At the desired stopping time point, add 50 μ L of Signal Guard™ phosphatase reaction stopping solution per 200 μ L volume in each microplate well.

Note: For other reaction volumes, adjust the addition of Signal Guard™ Phosphatase reaction stopping solution proportionally (e.g. add 5 μ L to a 25 μ L reaction volume). The signal level should remain stable for at least 18 hours.

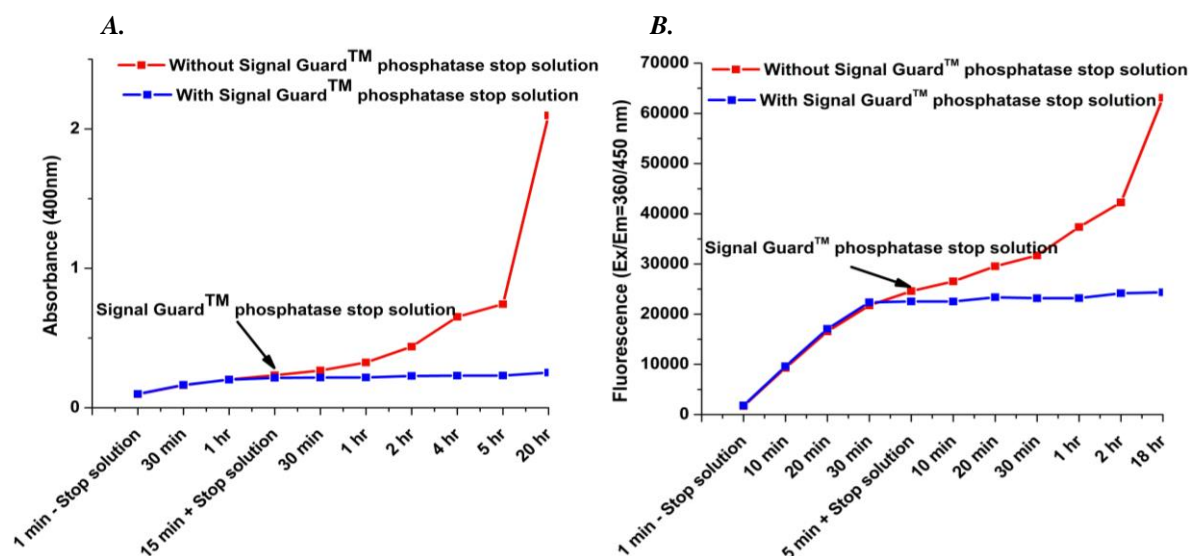


Figure 1. The application of Signal Guard™ phosphatase reaction stopping solution in A: Alkaline phosphatase colorimetric (AAT Bioquest Cat#11950) and B: Acid phosphatase fluorescence (AAT Bioquest Cat#11627) assay. Two parallel reactions containing 100 mU/mL Alkaline (A) or Acid (B) phosphatase was initiated by adding 200 μ L reaction mixture. Reactions were incubated at room temperature for times indicated above and then 50 μ L Signal Guard™ phosphatase reaction stopping solution was added to one reaction. The plots demonstrated that the reaction is completely inhibited by Signal Guard™ phosphatase reaction stopping solution.