

# Guardian™ Peroxidase Conjugate Stabilizer/Diluent

37548 37552

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Number	Description
37548	Guardian Peroxidase Conjugate Stabilizer/Diluent, 200mL
37552	Guardian Peroxidase Conjugate Stabilizer/Diluent, 1L

**Note:** This product has been filtered through a 0.2µm membrane and contains preservatives to prevent microbial growth during long-term storage.

**Storage:** Upon receipt store at room temperature or 4°C.

## Introduction

The Thermo Scientific™ Guardian™ Peroxidase Conjugate Stabilizer/Diluent significantly extends the life of horseradish peroxidase (HRP) conjugates, allowing consistent immunodetection results for extended time periods. HRP conjugates diluted and stored directly in Guardian Peroxidase Stabilizer/Diluent are stable for six months at room temperature or up to one year at 4°C. Best results are obtained when HRP conjugates diluted in Guardian Peroxidase Stabilizer/Diluent are used for ELISA and other soluble assay formats.

## Important Product Information

- Use buffers that contain < 10mM phosphate with this stabilizer/diluent, such as Tris, HEPES, bicine, tricine, MOPS, PIPES, or MES. Buffers containing > 10mM phosphate or significant amounts of carbonate and borate may produce precipitation.
- Background may be observed when using this stabilizer/diluent for membrane-based detection procedures (i.e., Western, Southern and Northern blots). To minimize background, dilute the conjugate in blocking buffer before performing membrane-based detection procedures.
- Before long-term storage of conjugates at ready-to-use dilutions, test the HRP conjugate diluted in the Guardian Stabilizer/Diluent for assay compatibility. This functional test will indicate whether an additional blocking agent is necessary to optimize the signal-to-noise ratio.
- To minimize bacterial growth during long-term storage, always filter diluted HRP conjugates through a 0.2 µm filter into a sterile container. The Guardian Stabilizer/Diluent contains anti-microbial agents.
- For best results, when adding other components (e.g., BSA, Thermo Scientific™ SuperBlock™ Blocking Buffer) to ready-to-use dilutions of the HRP conjugate, perform accelerated stability studies (see Table 1) to ensure the extra component does not hinder enzyme activity or introduce microbial contamination during long-term storage.
- The Guardian Stabilizer/Diluent has been tested with antibody and streptavidin conjugates. For other HRP conjugates, test conjugate stability in the Guardian Stabilizer/Diluent using accelerated temperature studies (see Table 1).

**Table 1. Accelerated temperature studies for enzyme activity.** The table details the time relationship between storing a conjugate at 50°C or 37°C and how this accelerated storage equates to room temperature and 4°C storage. For example, If a diluted HRP conjugate is stored for two weeks at 50°C, it also should be stable for 12.1 months at 4°C or 3.5 months at room temperature.

<u>Incubation Time</u>	<u>50°C</u>	<u>37°C</u>
1 week	= 6.1 months at 4°C = 1.7 months at RT	= 2.5 months at 4°C = 0.7 months at RT
2 weeks	= 12.1 months at 4°C = 3.5 months at RT	= 4.9 months at 4°C = 1.4 months at RT
3 weeks	= 18.2 months at 4°C = 5.2 months at RT	= 7.4 months at 4°C = 2.1 months at RT
4 weeks	= 24.3 months at 4°C = 7.0 months at RT	= 9.8 months at 4°C = 2.8 months at RT

## General Procedure for Diluting HRP Conjugates with the Guardian Stabilizer/Diluent

**Note:** Using buffers containing > 10% phosphate may cause precipitation.

1. Reconstitute the HRP conjugate, per manufacturer’s recommendation, and filter using a 0.2 µm filter before diluting.
2. Dilute and store HRP conjugate in Guardian Stabilizer/Diluent at ready-to-use concentrations (e.g., 1:50,000-1:100,000). Alternatively, dilute and store HRP conjugates at stock solution concentrations (e.g., 1:100-1:1000). Store diluted conjugate at 4°C for 12 months or six months at room temperature protected from direct exposure to light.
3. For optimal results, add blocking proteins directly to the diluted conjugate before performing detection procedures.

## Related Thermo Scientific Products

For a complete listing of blotting and ELISA products, please check the catalog or website.

<b>37515</b>	<b>SuperBlock Blocking Buffer in PBS, 1L</b>
<b>37535</b>	<b>SuperBlock Blocking Buffer in TBS, 1L</b>
<b>37538</b>	<b>StartingBlock™ (PBS) Blocking Buffer, 1L</b>
<b>37542</b>	<b>StartingBlock (TBS) Blocking Buffer, 1L</b>
<b>37527</b>	<b>SEA BLOCK Blocking Buffer, 500mL</b>
<b>37525</b>	<b>Blocker™ BSA in PBS (10X), 200mL</b>
<b>37520</b>	<b>Blocker BSA in TBS (10X), 125mL</b>
<b>37530</b>	<b>Blocker BLOTTO in TBS, 1L</b>
<b>37528</b>	<b>Blocker Casein in PBS, 1L</b>

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