ALPHA DIAGNOSTIC INTERNATIONAL

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## Coating Antibody or Protein stabilizer solution (10X)

**Cat.** PRTS-100 Coating Antibody or Protein stabilizer solution (10X), makes 1-L solution **SIZE**: 100 ml

Antibodies or proteins are typically coated on the ELISA plates and plates dried after blocking. Most commonly used blocking agents such as BSA, milk proteins or gelatins do not preserve protein or antibody activity. Coating Antibody or Protein stabilizer solution is a specially formulated general purpose immunoassay stabilizer that effectively preserves the conformation and activity of the dried proteins in immunoassay for 1-3 years. The protein stabilizer solution also serves as a blocking agent.

- Protein stabilizer simultaneously blocks and stabilizes with superior results.
- Use it to stabilize antibodies, antigens or enzymes on an assortment of immunoassay components, such as
- Polystyrene plates, tubes, glass, membranes, and filter paper. It is easily incorporated into most assay protocols by simply substituting it for your blocking solution.

**Suggested applications**

ADI's protein stabilizer solution contains proprietary ingredients including bovine proteins in a neutral pH buffer (pH 7.4) and proclin-300 (0.1%) as preservative. It is supplied as 10X solution. It should be diluted 1:10 with water or PBS before use.

**Store at 4oC**: Stable for 1 year.

**To Stabilize Adsorbed or Immobilized Proteins on Microtiter Plates/Strips**

1. Prepare required volume of 1X protein stabilizer solution by diluting it water and mix well.
2. Immobilize or adsorb the primary protein (antibody or antigen) according to the procedure optimized in your laboratory. Wash adequately to remove excess or weakly bound protein
3. Immediately after washing, add protein stabilizer solution to allow interaction with the entire protein-coated surface. Volume of the stabilizer should be the same as coating antibody or protein solution (e.g., if 100 ul antibody is coated/well then load 100 ul of 1X protein stabilizer per well).
4. Incubate for 15 to 60 minutes at room temperature. For most assays, protein stabilizer can replace the blocking solution. However, if your assay demands more blocking, mix protein stabilizer 1:1 with your current blocking solution for added blocking capability
5. Remove or aspirate the protein stabilizer solution, but do not wash.
6. Dry components for long-term storage. Products coated with Protein stabilizer may require longer drying times than those without Protein stabilizer. Recommended methods are to either (1) place plates in a humidity controlled chamber (less than 15% humidity) until dry (4 to 24 hours); or (2) or dry plates at 30-40℃ in a vacuum oven for 4 hours. Drying times should be optimized for each application.
7. Package the final, stabilized product in an airtight container with a desiccant. This is especially important when the final product is stored in a humid environment or refrigerated (where condensation is likely to occur).

**To Stabilize Adsorbed or Immobilized Proteins on Membranes**

1. Immobilize or adsorb the primary protein (antibody or antigen) according to the procedure optimized in your laboratory.

2. Dilute 10X stabilizer to 1:20 with water (the dilution ins 1:!0 for ELISA plates). Add 0.01% surfactant (tween-20%).

3. Coat membrane by incubating or spraying with the Protein stabilizer mixture.

4. Dry thoroughly. Faster drying results in better flow properties.

5. Package the final, stabilized product in an airtight container with a desiccant. This is especially important when the final product is stored in a humid environment or refrigerated (where condensation is likely to occur).

**To Stabilize Conjugates in Dry Form**

1. If you dilute your conjugate before drying/lyophilizing, use Protein stabilizer as the diluent. Otherwise, add between five and ten parts Protein stabilizer or one and two parts 10X Protein stabilizer to one part conjugate. (Optimum ratio should be empirically determined.) Mix gently.

2. If you are lyophilizing in vials with rubber stoppers, stability can sometimes be improved by placing the rubber stoppers in a 100℃ vacuum oven for one hour before use. This dries them and drives off any volatiles present in the stopper.

3. Freeze the conjugate/stabilizer mixture, then lyophilize as normal. Lyophilization may require extra time.

4. For evaporation drying, place the conjugate/stabilizer mixture in a 37-40℃ oven for four hours or until completely dry. The volume per container should be low enough to allow maximum surface area to be exposed to air during drying. Store the final product in an airtight container.

*This product is for *in vitro* research use only.

## Related material available from ADI:

Non-protein, non-bovine protein stabilizer

HRP conjugate stabilizer

Single solution, ready-to-use TMB for ELISA

PRTS-100 80701A

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