Liquid Plate Sealer® (5x) *(catalog no. 161)*

Stabilizer for coated antibodies and antigens on polystyrene- or glass-surfaces

Storage:	2 – 8 °C
pH-value at 19.0 – 21.0 °C:	6.5 ± 0.5
Preservative:	contains < 0.0014 % [w/w] reaction mass of CMIT/MIT (3:1)
Expiry date when stored unopened:	see label on the bottle

For general laboratory use

Liquid Plate Sealer® (5x) is a high-performance stabilizer that effectively preserves the structural integrity and activity of coated proteins during dry storage, and blocks surfaces to minimize non-specific binding. *Liquid Plate Sealer® (5x)* is ideal for use with antibodies, antigens and enzymes on different surfaces, including polystyrene microtiter plates, beads, glass surfaces and membranes, for subsequent use in immunoassays and related analytical applications.

Instructions for use

Liquid Plate Sealer® (5x) is a concentrated solution. Prior to use, dilute the concentrate 1:5 with purified water to obtain a ready-to-use working solution.

The working solution of *Liquid Plate Sealer® (5x)* is used directly after coating, or after blocking and washing. *Liquid Plate Sealer® (5x)* seals and stabilizes coated proteins.
Alternatively, *Liquid Plate Sealer® (5x)* can be added to a coating reaction (e.g. 50 µl *Liquid Plate Sealer® (5x)* into 200 µl coating volume) to stop the coating, block the surface and stabilize the coated proteins in one step.
In case of strong background signals, we recommend pre-treating the surface with *The Blocking Solution* (catalog no. 110) prior to applying the sealer.

The microtiter plate is incubated with the working solution of *Liquid Plate Sealer® (5x)* and dried afterwards. After drying the plate or solid phase, the coated molecules have a significantly longer shelf life of typically 2 to 3 years when stored in a cool and dry place. To use the stabilized plates (solid phases) for an assay, the assay buffer or the sample can be applied directly to the plate. Additional washing step are not required.

Procedure A (volumes for a 96-well plate)

1. Follow the standard procedure for coating and blocking for microtiter plate. Remove the blocking solution at the end of the incubation.
   Note: Detergent residues can have a negative impact on the stabilization process. When using blocking buffers with increased detergent concentrations, the wells should therefore be washed with 200 – 300 µl wash buffer without detergents (catalog no. 141 or 146) after blocking.

2. Add 200 µl *Liquid Plate Sealer® (5x)* working solution per well and incubate for 15 - 90 minutes at approx. 20 – 30 °C.
   Note: The volume per well should at least match the volume used for the coating or ideally exceed it by at least 50 µl. This ensures that the entire coated surface is covered by Liquid Plate Sealer® working solution.

3. Aspirate *Liquid Plate Sealer® (5x)* working solution. Buffer residues can be removed by additionally knocking out on absorbent paper. Incubate plates at 37 – 40 °C until dry. Typical incubation times are between 60 and 120 minutes, depending on the temperature, the type of incubator, the number of plates and the (active) air circulation of the incubator.

   Alternatively, the plate can also be air-dried at room temperature. Please note that, depending on the antibody, the resulting shelf life may be shorter than when drying in an incubator. After drying at room temperature, the plate can be stored at 2 – 8 °C for several months until use.

4. Storage: Store the plate sealed in a pouch in a dry place (with additional desiccant if necessary) at 2 – 8 °C for up to 2 to 3 years.

   Alternatively, the plate can be stored directly at 2 – 8 °C without sealing. The shelf life of the plate is reduced to several months instead of years (due to the humidity present). We recommend sealing of the plate with an appropriate adhesive film. This reduces the influence of humidity and protects the plate from contamination during storage. For in-house laboratory use, this storage method is a good and frequently chosen option due to its simplicity. In this case, there is no need to add desiccant or seal the plate.

Procedure B (volumes for a 96-well plate)

1. Follow the standard coating procedure for the microtiter plates.
2. After completion of the coating process*, dilute *Liquid Plate Sealer® (5x)* directly into the well. Example: for 200 µl coating solution, add an additional 50 µl of *Liquid Plate Sealer® (5x)* directly into the well. Incubate for 15 - 90 minutes at approx. 20 - 30 °C.
3. Aspirate the solution. Buffer residues can be removed by additionally knocking out on absorbent paper. Incubate plates at 37 – 40 °C until dry. Typical incubation times are between 60 and 120 minutes, depending on the temperature, the type of incubator, the number of plates and the (active) air circulation of the incubator.
4. Storage: Store the plate sealed in a pouch in a dry place (with additional desiccant if necessary) at 2 – 8 °C for up to 2 to 3 years.

   *Addition of *Liquid Plate Sealer® (5x)* stops the coating process. The optimum time required for coating individual antibodies or antigens should be determined before using *Liquid Plate Sealer® (5x)*.

Shelf life values are provided as general guidelines. While extended stability has been observed in many cases, these results cannot be universally applied due to variability among proteins. Each assay should be evaluated independently to determine the achievable stability.

For further information please visit www.candor-bioscience.com.