

IMMUNOASSAY OPTIMIZATION REAGENTS



Optimizers • Blockers • Stabilizers

We Bring The World Of Biotechnology To You



OPTIMIZERS

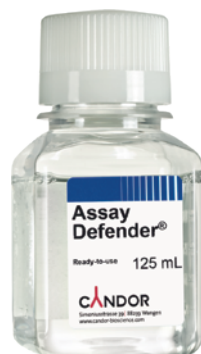
Reduce Interference and Increase Reliability with Optimization Buffers and Diluents.



LowCross-Buffer®

Antibody and sample diluent that reduces all types of interference.

- Minimizes non-specific binding of the antibodies
- Reduces matrix effects
- Targets low or medium affinity cross-reactivities of the antibodies



Assay Defender®

New sample diluent that minimizes HAMA or other AAA interference.

- Reduces interference caused by high affinity antibodies
- Minimizes all types of interference unlike typical HAMA blockers
- Ideal for research in autoimmune diseases



LowCross® HRP-Stab

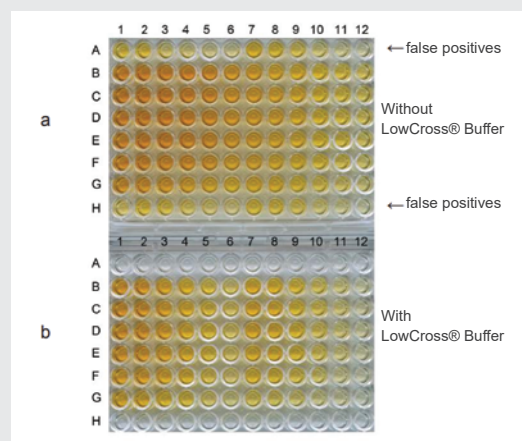
Multifunctional assay diluent for minimizing interference and for long-term storage of HRP-conjugates.

- Prevents non-specific binding, matrix effects, and cross-reactivities
- Stabilizes HRP-conjugates for several years

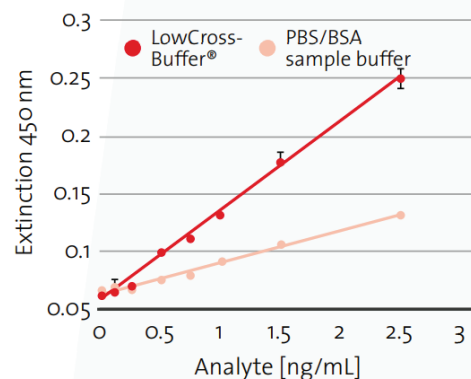
The “LowCross®” Effect

LowCross® Buffer is specially developed to prevent undesired binding of the antibody while maintaining specific binding of the antibody to the analyte. The reduction of low and medium affinity interactions is achieved through affinity discrimination. For reducing interference caused by high affinity antibodies, **Assay Defender®** is recommended.

LowCross-Buffer® in ELISA



Prevention of false-positive binding in an ELISA against guinea-pig IgG. With the standard assay buffer (a), false positives in the specificity control (row A) and in the blank values (row H) spoiled the interpretations and evaluation. The use of LowCross-Buffer® (b) prevented all false-positive signals.



Elimination of a matrix effect. Matrix effect in an assay for detection of CRP (creactive protein) in rabbit blood plasma. Matrix proteins in plasma mask the analyte CRP. LowCross-Buffer® demasks the analyte and improves sensitivity and detection limit by a factor of 3.

BLOCKERS

Prevent Non-specific Binding and Cross-reactivities and Improve Assay Sensitivity.



The Blocking Solution

High performance surface blocker that minimizes non-specific binding and improves assay sensitivity.

- Based on highly purified casein
- Ideal for assays that require high reproducibility and low coefficients of variation



PlateBlock™

Animal and protein-free blocker optimized for serological assays.

- Reduces false positives for more reliable testing
- Prevents non-specific binding, cross-reactivities, and lowers background



SmartBlock™

BSA-free blocker for saturating free binding sites on surfaces.

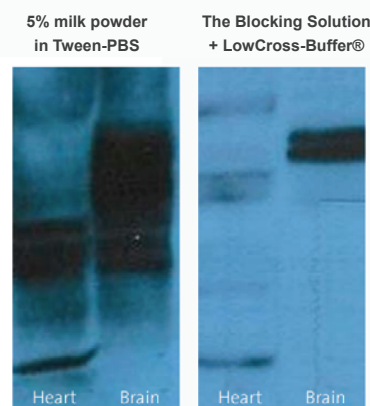
- Based on chemically modified peptides
- Economical, reliable alternative to blockers containing BSA
- Highly efficient blocker

Why is Blocking Required?

Blocking is an essential step in achieving reliable results in immunoassays. The surfaces of ELISA plates or Western blotting membranes are optimized for efficient attachment of proteins and antibodies, but this can lead to unwanted proteins or peptides attaching to the surface as well. This can result in false positives or high background signals. To prevent this, blocking is required to saturate free binding capacities of the surface.

Candor's blocking reagents are highly superior to blockers based on milk powder or unpurified blocking extracts. Their strong lot-to-lot consistency ensures reproducible results. For critical applications, **The Blocking Solution** is recommended as it is the most effective blocker.

The Blocking Solution in Western Blotting



Detection of CaMKII in lysate from heart and brain tissues of C57Bl/6 mice. Monoclonal Anti CaMKII was used as primary antibody and a polyclonal HRP-conjugate as secondary antibody. **The combination of The Blocking Solution and LowCross-Buffer®** (as dilution buffer for primary and secondary antibodies) leads to a clear result.

STABILIZERS

Preserve the Functionality of your Antibodies, Conjugates, and Antigens for Long-term Storage.



Antibody Stabilizer

Solution for long-term refrigerated storage of proteins and antibodies.

- Conserves structure of proteins and antibodies to prevent loss of function
- Avoids the need for freezing and thawing
- Available based on TRIS and PBS



Liquid Plate Sealer®

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

- Coated molecules' shelf life is extended to 1-3 years
- Seals plates with uniform, soluble stabilizing layer without affecting the assay



HRP-Protector™

Diluent for long-term storage of horseradish peroxidase (HRP) coupled to antibodies or Neutravidin/Streptavidin.

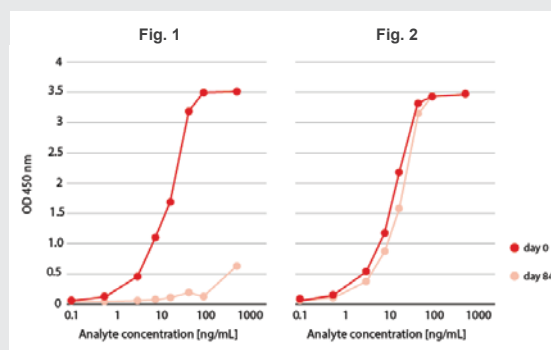
- Provides critical stability for several years
- Can be used directly as an assay buffer for incubating HRP-conjugates

Importance of Stability

Immunoassay stabilizers are needed to maintain the native conformation of proteins and to protect them from losing their functionality. Candor's stabilizers enable long-term storage of antibodies, conjugates, and antigens in solutions or coated on microtiter plates and other surfaces.

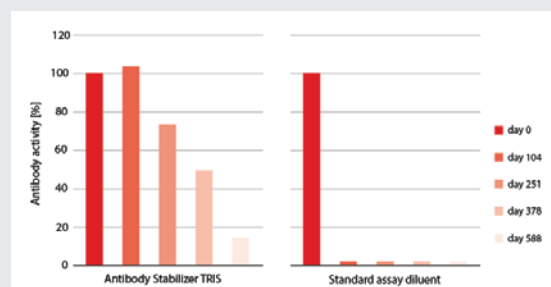
To achieve reliable results in immunoassays, it is essential to stabilize standards for calibration curves, coated plates, and antibodies during storage. Candor's stabilizers maintain the activity of all biological components of an immunoassay.

Liquid Plate Sealer® in ELISA



Stress test. Calibration curves of an ELISA, blocked with BSA (fig. 1) or blocked with BSA and stabilized with Liquid Plate Sealer® (fig. 2). Calibration curves at the starting day are identical. After 84 days at 37°C, no remaining binding activity of the capture antibodies is detectable in the unstabilized plate, but the stabilized plate does not show a significant decrease in sensitivity.

Antibody Stabilizer in ELISA



Stress test. Shelf life of an antibody is measured as binding in an ELISA after storage under temperature stress at 45°C. The tests were performed with an antibody concentration of 400ng/mL. After 251 days of incubation with Antibody Stabilizer, the antibody retained around 73% binding activity.

Find the Optimal Candor Reagent for your Assay with our Starter Kits!



Immunoassay Optimization Starter Kit

LowCross-Buffer®, The Blocking Solution and Washing Buffer TRIS. A version without tween for IHC is also available.

Cat# 600 001

Blocking Reagent Sampler Pack for ELISA

The Blocking Solution, SmartBlock™, and PlateBlock™. Try each reagent to find the ideal blocker for your application.

Cat# 600 025

COVID-19 ELISA Sampler Pack

Six reagents including PlateBlock™, LowCross-Buffer® Strong, and Liquid Plate Sealer® Animal-Free.

This kit includes everything you need for reliable serological assays, complete with blockers, diluents, and stabilizers. With the new blocker PlateBlock™, you can be sure your assays are free of false positives and negatives.

Cat# 600 031

For more Candor reagents, visit us at
www.bocascientific.com

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