Description

Avidin-coated plates are used for immunoassays when direct coating on plastic would denature an antibody or a protein of interest. BPS Bioscience uses NeutrAvidin™ to manufacture high-binding capacity plates. NeutrAvidin is a de-glycosylated form of avidin that prevents non-specific binding of lectins. It has a near-neutral isoelectric point (pI) of 6.3, which decreases non-specific interactions. It also lacks the bacterial RYD (Arg-Tyr-Asp) motif of streptavidin that binds to the RGD (Arg-Gly-Asp) motif found in adhesion receptors present at the surface of various cells.

The NeutrAvidin-coated plates are pre-blocked for a very low background, saving time the immunoassay.

- High reproducibility
- High dynamic range
- Low non-specific binding

Supplied As: Five white 96-well plates in a sealed bag with silica. These plates are compatible with luminescence assays.

Application(s)

- Capture biotin-labeled antibody or biotinylated protein of interest for immunoassay
- Capture small biotinylated peptides or short-length biotinylated DNA/RNA sequences
- Capture full-length biotinylated nucleosomes

Example Data

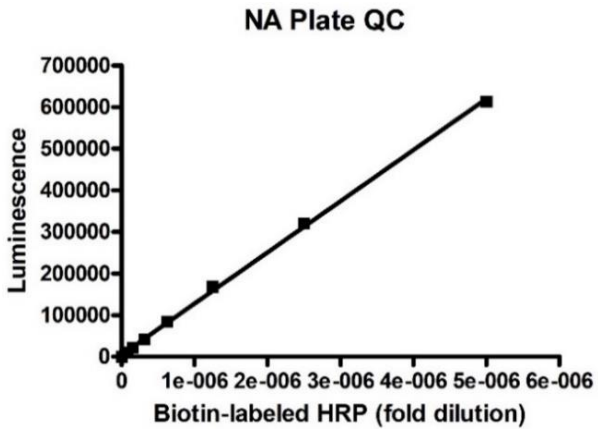

Figure 1: Representative data of Biotin-labeled HRP binding using NeutrAvidin™ Plate (BPS Bioscience #79512).

Storage Conditions

This plate will perform optimally for up to 6 months from date of receipt when the materials are stored as directed. Store at 4°C in a sealed bag and protect from moisture.

Plate preparation

1. Rehydrate the plate by adding 200 µl of TBST to every well. Incubate 15 minutes at room temperature. Remove the TBST and tap the plate onto clean paper towels to remove all liquid. Proceed with the coating of the biotinylated compound.

2. **TBST** (Tris-buffer saline with Tween-20): 50 mM Tris-HCl, pH 8.0, 150 mM NaCl, 0.05% Tween-20
3. The optimal volume of reagents for each incubation is 100 µl.
4. The optimal volume for washes is 200 µl.

Example of protocol using a biotin-labeled capture antibody in a sandwich ELISA

1. To the **rehydrated** plate, add 100 µl of biotinylated capture antibody and incubate at room temperature for 2 hours.
2. Wash the plate three times with 200 µl of TBST.
3. Prepare a serial dilution of the antigen of interest and add 100 µl of each dilution per well.
4. Incubate at room temperature for 1 hour.
5. Wash the plate three times with 200 µl of TBST.
6. Add 100 µl of primary anti-antigen antibody
7. Incubate at room temperature for 1 hour.
8. Wash the plate three times with 200 µl of TBST.
9. Add 100 µl of HRP-conjugated secondary antibody against the primary antibody.
10. Incubate for 30 minutes at room temperature.
11. Wash the plate three times with 200 µl of TBST.
12. Add a chemiluminescent substrate (Example: ELISA ECL Substrate, BPS Bioscience #79670).

Example of protocol to coat small biotinylated peptides or nucleotides for methyltransferase, acetyltransferase, or demethylase reactions

1. To the **rehydrated** plate, add 100 µl of biotinylated peptide or nucleotide at the desired concentration.
2. Incubate at 37°C for 1 hour.
3. Wash the plate three times with 200 µl of TBST. Remove excess TBST by blotting the plate onto paper towels.
4. For enzymatic assays, it is best to perform an additional step of blocking prior to adding the enzyme. Add 200 µl/well of your blocking buffer of choice, diluted in TBS if dilution is needed.
5. Incubate at room temperature for 1 hour.
6. Remove the blocking buffer and blot the excess buffer onto paper towels.
7. Proceed with the enzymatic assay as desired.

Related Products

Products	*Catalog #*	*Size*
E. coli in vivo Biotinylation Kit	27461	1 kit
BirA, His-FLAG-tags (*E. coli*-derived) Recombinant	70030	100 µg
ELISA ECL Substrate	79670	200 ml