

Streptavidin coated MicroPlates

Product Description

Streptavidin coated Strip Microplates for Immunoassays.

Part Number	Description
UPL76161	Streptavidin coated Microplates, 5 units plates are supplied pre-blocked with BSA

Storage: +4°C. Plates are provided in sealed bags

Directions for Use

Uptima suggests the following standard protocole, that could be adapted for each application. Recommended buffer is the following:

- ✓ Dilution Buffer: PBS (#UP307157), 0.1% BSA (#UP900100), 0.05% Tween-20 (#UP158740).
- ✓ Wash Buffer: PBS, 0.05% Tween-20.

Open the sealed bag, and take sufficient strips for the analysis.
Place the remaining strips with dessicant in a sealed bag at +4°C.

Protocole 1: analysis of biotinylated molecules by direct capture ELISA

- Rinse each well with 3 times with 200 µl of Wash Buffer.
Rem: This step is important for optimal and accurate results.
- Prepare serial dilutions of the sample, containing the desired biotinylated molecules, with Dilution Buffer.
- Add 100 µl of biotinylated molecule dilutions to each well.
- Incubate for 30 min at room temperature.
- Rinse each well 3 times with 250 µl of wash buffer.
- The immobilized biotinylated molecules can then be detected by suitable reagents (labeled streptavidin if the molecule is poly biotinylated, or with labeled specific antibodies).
It can also be used as a coating surface for immunoassay (see protocole 2)

Protocole 2: indirect coating of biotinylated probes for sandwich ELISA techniques

- Rinse each well with 3 times with 200 µl of Wash Buffer.
Note: This step is important for optimal and accurate results.
- Prepare a 0.1-5µg/ml of the desired biotinylated probe (antibody, nucleotide, lectin...) in Dilution Buffer.
- Add 100 µl of biotinylated probe to each well.
- Incubate 30 min at room temperature.
- Rinse each well 3 times with 250 µl of wash buffer.
- Use the plates immediately as coated microplates for ELISA detection system
Note: indirectly coated plates may be stored at +4°C or frozen (check for the first time)

Further steps may include the incubation of a sample to capture an antigen, a wash, then a detection that can be achieved with labeled specific antibody or other suitable ligand.

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Suggested detection protocols with peroxidase labeled probes:

- Wash well the strips to remove unbound molecules.
- Add 100µl per well of peroxidase labeled probe (peroxidase labeled antibody or streptavidin)
- Wash well the strips to remove unbound molecules. Insufficient washes may lead to undesired background.
- Add 150 µl of Uptima TMB substrate to each microplate well. Incubate 30 min at room temperature in darkness.
- Stop the reaction with 100 µl of HCl 1M. Read the OD at 450 nm.

Scientific and Technical Information

- Streptavidin is isolated from *Streptomyces avidinii*, and has a very high affinity for biotin ($>10^{-14} \text{ M}^{-1}$). This makes the streptavidin-biotin interaction an ideal tool for many research applications. Streptavidin does not have any carbohydrates and has a lower ionic charge than avidin, resulting in a lower non-specific background. This makes streptavidin a preferred choice for many biotin-based applications.
- Uptima streptavidin coated microplates are designed for the analysis of biotinylated molecules or for indirect coating with biotinylated ligands. This support bind very effectively any biotinylated molecule, with very rapid kinetic and excellent binding capacity, offering a multipurpose tool for various capture and immunodetection systems.
- The Streptavidin coated microplates are supplied pre-blocked with bovine albumin, and suitable for colorimetric immuno-detections (i.e. with HRP or Alkaline Phosphatase). Ask Uptima if you are using other detections, as chemiluminescence (SeaBlock saturating agent, # UP40301A may be proposed).
- The variation coefficient (CV) between wells is below 5%, and Uptima take care of the best reproducibility between lots.

Related product:

Peroxidase labeled secondary antibodies (ask Uptima)

Peroxidase labeled Streptavidin, #UP395880

TMB substrates, #UP664780, # UPS08170, # UPS08180

PBS buffer, # UP307157 (tablets), #UP68723A (powder)

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