

# Product Sheet

V4.0

## Streptavidin Microplate - standard capacity (Article No. 604500) Streptavidin Microplate - high capacity (Article No. 604501)

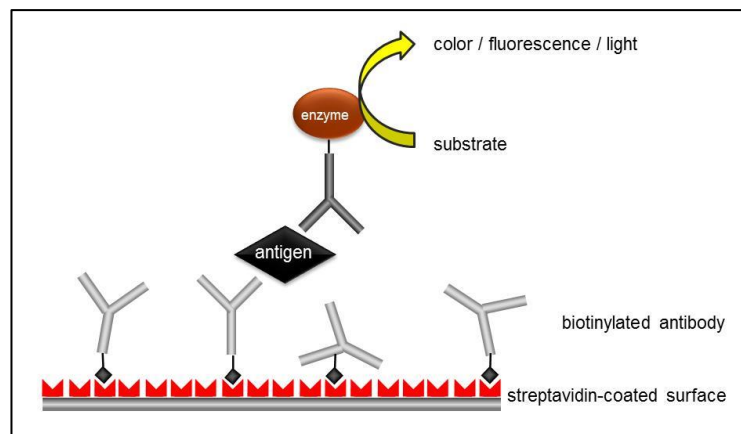
**Application:** Immobilization of biotinylated compounds

Streptavidin-coated microplates can be used in all kinds of immunoassays especially for enzyme-linked immunosorbent assays (ELISA). Additional applications are e.g. assay systems for detecting protein-nucleic acid interactions and nucleic acid hybridization and amplification.

**Background:** Enzyme-linked immunosorbent assay (ELISA), also known as enzyme immunoassay (EIA), is a biochemical technique used mainly in immunology to detect the presence of a specific antibody or antigen in a sample. The ELISA is widely used as a diagnostic tool in medicine and biotechnology, as well as a quality control check in various industries, such as ELISA application in food industry.

The mostly used ELISA variants are sandwich and competitive ELISAs. In a classical sandwich ELISA, an antibody is coated to the surface of a microplate (capture antibody) and a sample with an unknown ligand concentration is added. After a washing step to remove unbound material, a detection antibody is applied that binds to the antigen. This antibody is linked to an enzyme, and in the final step a substance is added that elicits a chromogenic, chemiluminescent or fluorescent signal.

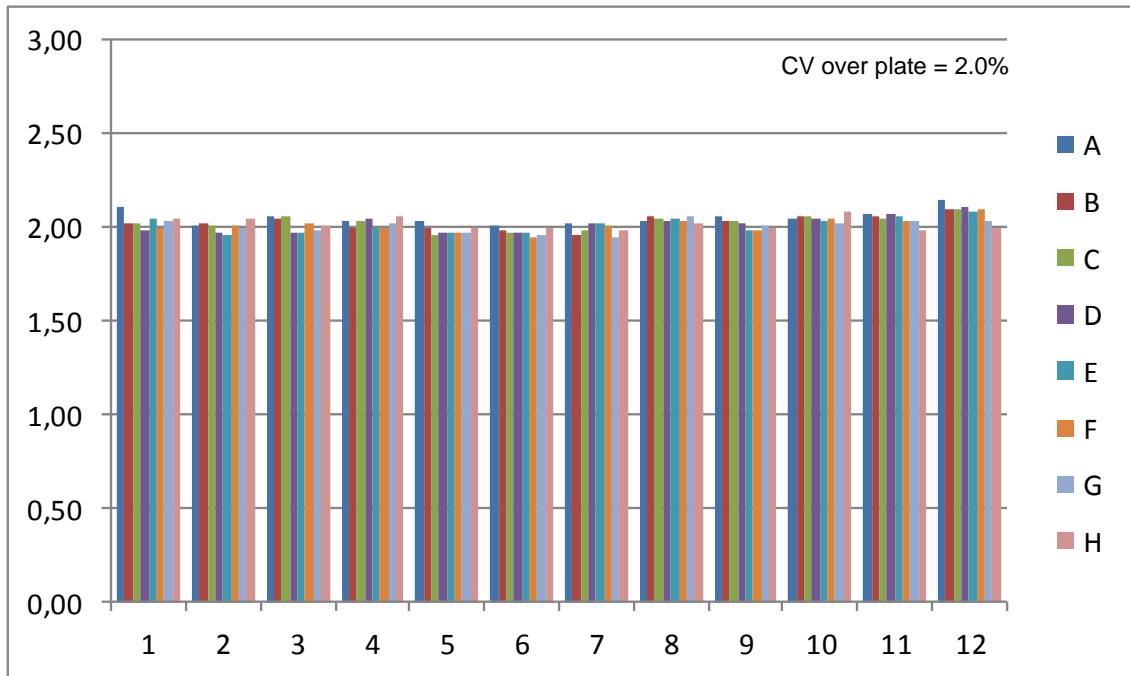
Instead of coating the antibody directly onto the surface, we recommend to use the modular streptavidin-biotin system.



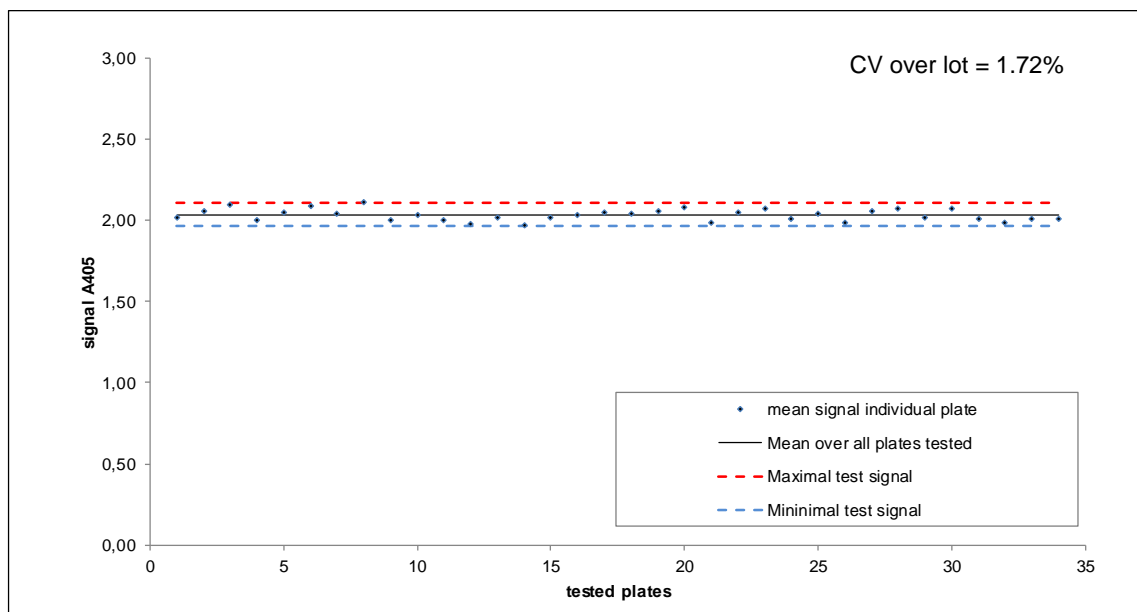
### Features of Microcoat's Streptavidin Microplates

- Very stable ready-to-use microplates which can easily be combined with any biotinylated component, like an antigen, an antibody, an oligonucleotide or a small molecule;
- Exhibiting a low level of non-specific binding;
- Process and compounds used guarantee high reproducibility (lot-to-lot), intra-lot and intra-plate homogeneity leading to low intra- and inter-assay variance;
- Low leaching of streptavidin;
- Biotinylated component can be coated in an additional step during the production of the plates;
- Produced in a controlled area according to ISO 9001 and EN ISO 13485.

## Microcoat's streptavidin microplates: Impressive quality



**Figure 1: Intra-plate homogeneity.** A random Streptavidin Microplate - standard capacity was tested with our standard QC protocol. The overall coefficient of variation was 2.0%.



**Figure 2: Intra-lot variance of a typical lot of streptavidin microplates (production size 6000 plates).** Thirty-four plates of Streptavidin Microplate - standard capacity from all over the production lot (beginning, mid and end of production) were tested with our standard QC protocol. The overall coefficient of variation was 1.72%.

## Standard and customized streptavidin microplates

Being a B2B manufacturer Microcoat is the supplier of many streptavidin microplates used for ELISAs on the market.

Small quantities of the two standard streptavidin microplate variants specified below are available from stock. Large quantities are produced make-to-order according to customer specifications. Lot size of one batch can be up to 10,000 plates or even more.

All types of transparent, white or black streptavidin-coated plates (96- and 384-well) are available for colorimetric, chemiluminescent and fluorescent applications as well as plates with different well shapes (U, C, F, half-area) or different formats (strip or solid plate). Most plates are made of polystyrene but polypropylene plates are also available. The minimum order size for customized microplates is 500 plates per order with a standard lead time of 8 – 12 weeks. For evaluation purposes lower amounts are possible. Please inquire for further information.

Diagnostic kit manufacturers require procedures ensuring high process safety and security of supply, using raw materials of excellent quality and consistency. Rely on Microcoat for your diagnostic manufacturing needs. Microcoat's high quality streptavidin microplates are one basic ingredient for a superior quality of diagnostic kits.

### Streptavidin Microplate - standard capacity (Article No. 604500)

Product appearance	Transparent 96-well microplate (12 x 8 well strips in a frame, flat bottom) packaged in a pouch with desiccant
Binding capacity (measured in competition assay)	≥ 5 ng biotin/well (≥ 20 pmol) ≈ 1.8 µg of biotinylated antibody per well
Homogeneity:	< 5% (well-to-well variance) ≤ 10% (plate-to-plate variance)
Recommended working volume	100 – 200 µl/well of biotinylated compound
Coating volume	≥ 250 µl/well (corresponds to about 184 mm <sup>2</sup> /well) Wells are blocked to >260 µl/well
Storage conditions and shelf life	Storage at 2-8°C. Do not freeze! The product is stable until the stated expiry date when stored correctly (36 months after production date)

### Streptavidin Microplate - high capacity (Article No. 604501)

Product appearance	Transparent 96-well microplate (12 x 8 well strips in a frame, "F" bottom) packaged in a pouch with desiccant
Binding capacity (measured in competition assay)	≥ 15 ng/well biotin/well (≥ 60 pmol) ≈ 5.6 µg of biotinylated antibody per well
Homogeneity:	< 5% (well-to-well variance) ≤ 10% (plate-to-plate variance)
Recommended working volume	100 – 200 µl/well of biotinylated compound
Coating volume	≥ 250 µl/well (corresponds to about 184 mm <sup>2</sup> /well) Wells are blocked to >260 µl/well
Storage conditions and shelf life	Storage at 2-8°C. Do not freeze! The product are stable until the stated expiry date when stored correctly (36 months after production date)