

## PRODUCT DATA SHEET

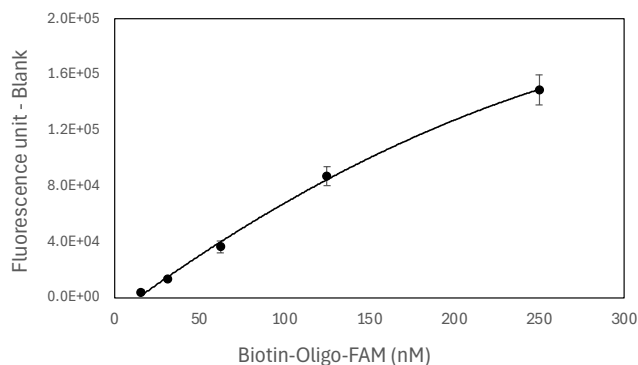
### PolyAvidin Polymerized Streptavidin Coated Black Plate

#### Description

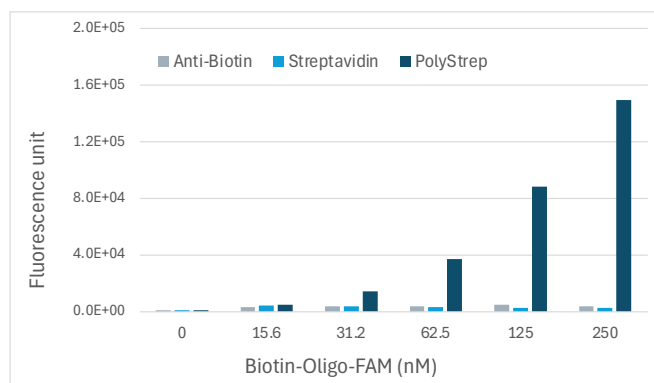
Streptavidin is a tetrameric protein with exceptionally high affinity for biotin, enabling specific capture of biotinylated molecules. Polymerized streptavidin provides higher biotin-binding capacity and stronger target immobilization than conventional streptavidin coatings. Its multivalent structure enhances capture efficiency, assay sensitivity, and signal stability, particularly in fluorescence-based applications. The black plate format minimizes background fluorescence, light scatter, and well-to-well crosstalk, making it ideal for fluorescence-based detection. Polymerized streptavidin black plates provide a reliable and reproducible platform for fluorescent immunoassays, biomarker detection, screening, and assay development workflows. These plates are particularly beneficial when direct adsorption onto polystyrene surfaces may compromise the structure or activity of sensitive biomolecules.

#### Feature

Our pre-coated black 96-well microplate features polymerized Streptavidin for highly sensitive and specific capture of biotinylated molecules in fluorescence-based assay formats. Optimized for plate-based fluorescence assay, the plate offers higher binding density, enhanced assay sensitivity, low background, and excellent reproducibility compared to standard streptavidin, and anti-Biotin coating. This ready-to-use format enables detection of biotinylated proteins, peptides, antibodies, and nucleic acids while streamlining assay setup and improving performance in demanding fluorescence workflows.



**Figure 1:** Pre-coated Polymerized streptavidin plate detecting Biotinylated oligonucleotide-FAM in plate-based fluorescence assay.



**Figure 2:** Pre-coated Polymerized Streptavidin plate compared with Anti-biotin antibody, standard Streptavidin coated plates in detecting Biotinylated oligonucleotide-FAM in plate-based fluorescence assay.

#### Characteristics

Target name	Biotin
Alternate names	Biotinylated molecules
Assay format	Plate-based fluorescence assay
Validated Sample	Biotinylated oligonucleotide-FAM
Sample volume	100 $\mu$ L
Analytical sensitivity	<12 nM
Assay range	15.6 – 250 nM
Intra-assay CV	<15%
Inter-assay CV	<20%
Detection & Instrument	Fluorescence, Microplate Reader

#### Validation

Each manufactured lot of this pre-coated plate is quality tested using Plate-based fluorescence assay for criteria such as precision, and lot-to-lot consistency.

#### Storage

This product should be stored at 2-8°C. Do not freeze. If stored and handled as specified, Polymerized streptavidin pre-coated plate is stable for at least 6 months.

#### Precautions and Disclaimer

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Please consult the Material Safety Data Sheet available online at [www.cytodiagnosics.com](http://www.cytodiagnosics.com) for information regarding hazards and safe handling procedures.

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