



## PRODUCT DATA SHEET

### Streptavidin Fluorescent Particles

#### Description

Streptavidin is a protein (MW of approx. 66,000) made up of four identical subunits, each containing a high affinity binding site for biotin. It has the same biotin binding properties as avidin, but less non-specific binding is observed. It has been used both in immune assays and genomic assays for target detection.

Abvigen Streptavidin bead surfaces are designed as a matrix for simple and efficient methods such as: Protein coated beads for the isolation of biotinylated compounds such as proteins, immunoglobulins, sugars, lectins or DNA/RNA and microRNA

Magnetic streptavidin coated beads can be used as substrates for both immune assays and genomic assays

Small fluorescently labeled streptavidin particles can be used as probes for detection.

Abvigen offers a wide variety of fluorescent particles coated with antibodies, Avidin, Biotin, Protein A and Protein G for the convenience of our customers.

For custom sizes, formulations or bulk quantities please contact our customer service department.

website: [www.abvigen.com](http://www.abvigen.com) Phone: +1 929-202-3014 Email: [info@abvigenus.com](mailto:info@abvigenus.com)

#### Characteristics

Core diameter: 400 nm - 7.9  $\mu$ m

Size: 5 ml

Concentration: 1 mg/ml

Surface: Streptavidin

Shape: Spherical

Density: 1.03 g/ccm

Composition: Fluorescent Polystyrene Particles

Form: Suspension

Store: Storage at 2 - 8 °C

#### Storage



This product should be stored at 2 - 8°C. **DO NOT FREEZE.**

### Highlights

Beneficial to bioimaging and biosensing applications

Uniform and stable fluorescence

Available with functional groups for covalent binding

### For 1 mg/ml of 0.1% w/v PS Fluorescent Particles

| Diameter | Conc.<br>mg/ml | Particles/mg | Particles/ml | Diameter | Conc.<br>mg/ml | Particles/mg | Particles/ml |
|----------|----------------|--------------|--------------|----------|----------------|--------------|--------------|
| 25 nm    | 1              | 1.16E+14     | 1.16E+14     | 10 um    | 1              | 1.82E+06     | 1.82E+06     |
| 50 nm    | 1              | 1.46E+13     | 1.46E+13     | 20 um    | 1              | 2.27E+05     | 2.27E+05     |
| 80 nm    | 1              | 3.55E+12     | 3.55E+12     | 30 um    | 1              | 6.74E+04     | 6.74E+04     |
| 100 nm   | 1              | 1.82E+12     | 1.82E+12     | 40 um    | 1              | 2.84E+04     | 2.84E+04     |
| 200 nm   | 1              | 2.27E+11     | 2.27E+11     | 50 um    | 1              | 1.46E+04     | 1.46E+04     |
| 300 nm   | 1              | 6.74E+10     | 6.74E+10     | 60 um    | 1              | 8.42E+03     | 8.42E+03     |
| 400 nm   | 1              | 2.84E+10     | 2.84E+10     | 70 um    | 1              | 5.30E+03     | 5.30E+03     |
| 500 nm   | 1              | 1.46E+10     | 1.46E+10     | 80 um    | 1              | 3.55E+03     | 3.55E+03     |
| 600 nm   | 1              | 8.42E+09     | 8.42E+09     | 90 um    | 1              | 2.50E+03     | 2.50E+03     |
| 700 nm   | 1              | 5.30E+09     | 5.30E+09     | 100 um   | 1              | 1.82E+03     | 1.82E+03     |
| 800 nm   | 1              | 3.55E+09     | 3.55E+09     | 200 um   | 1              | 2.27E+02     | 2.27E+02     |
| 900 nm   | 1              | 2.50E+09     | 2.50E+09     | 300 um   | 1              | 6.74E+01     | 6.74E+01     |
| 1 um     | 1              | 1.82E+09     | 1.82E+09     | 400 um   | 1              | 2.84E+01     | 2.84E+01     |
| 2 um     | 1              | 2.27E+08     | 2.27E+08     | 500 um   | 1              | 1.46E+01     | 1.46E+01     |
| 3 um     | 1              | 6.74E+07     | 6.74E+07     | 600 um   | 1              | 8.42E+00     | 8.42E+00     |
| 4 um     | 1              | 2.84E+07     | 2.84E+07     | 700 um   | 1              | 5.30E+00     | 5.30E+00     |
| 5 um     | 1              | 1.46E+07     | 1.46E+07     | 800 um   | 1              | 3.55E+00     | 3.55E+00     |
| 6 um     | 1              | 8.42E+06     | 8.42E+06     | 900 um   | 1              | 2.50E+00     | 2.50E+00     |
| 7 um     | 1              | 5.30E+06     | 5.30E+06     | 1 mm     | 1              | 1.82E+00     | 1.82E+00     |
| 8 um     | 1              | 3.55E+06     | 3.55E+06     | 3 mm     | 1              | 6.74E-02     | 6.74E-02     |
| 9 um     | 1              | 2.50E+06     | 2.50E+06     |          |                |              |              |



### Polystyrene Particles Centrifugation Parameters

| Particle Size | Centrifugal Acceleration | Time   | Resuspension of Pellet     |
|---------------|--------------------------|--------|----------------------------|
| 50 nm         | 45,000 x g               | 30 min | 30 min sonication / vortex |
| 100 nm        | 45,000 x g               | 30 min | 30 min sonication / vortex |
| 200 nm        | 45,000 x g               | 30 min | 30 min sonication / vortex |
| 500 nm        | 45,000 x g               | 20 min | 10 min sonication / vortex |
| 800 nm        | 10,000 x g               | 20 min | 10 min sonication / vortex |
| 1 µm          | 3,500 x g                | 15 min | 10 min sonication / vortex |
| 2 – 4 µm      | 1,600 x g                | 15 min | vortex                     |
| 5 - 8 µm      | 1,200 x g                | 10 min | vortex                     |
| > 8 µm        | 25 x g                   | 10 min | vortex                     |

### Ordering Information

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