



## Carboxyl Polystyrene Particles-Abvi Fluor488 PRODUCT DATA SHEET

### Carboxyl Polystyrene Particles-Abvi Fluor488

#### Description

Fluorescent Polystyrene Particles are prepared by either incorporation of selected fluorophores into monodisperse polystyrene particles by means of swelling processes or by copolymerization of styrene with various organic fluorescent dyes, these processes generate fluorophores labeled polystyrene particles with favorable properties.

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

Concentration: 10 mg/ml

Size: 10 ml; 20 ml

Surface: COOH

Shape: Spherical

Density: 1.03 g/ccm

Composition: Green Fluorescent Polystyrene Particles

Excitation: 488 nm

Emission: 518 nm

Buffer: DI Water

Form: Suspension

Store: Storage at 2 - 8 °C

#### Storage

This product should be stored at 4°C. **DO NOT FREEZE.**

#### Highlights

Monodisperse particles

1378 US-206 Ste 6-126, Skillman, NJ USA

[info@abvigenus.com](mailto:info@abvigenus.com)

Tel: 1-816-388- 0112 Fax: 1- 888-616-0161

Reserved

Email:

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High particle size uniformity

High-intensity fluorescence

Outstanding long-term stability under proper storage conditions (both color and fluorescence)

Spherical shape

Great resistance to photobleaching

Minimized dye leaching

Suitable for uses in flow cytometry, fluorescence microscopy, phagocytosis studies and cell labeling

Offered with streptavidin on the surface for binding of biotinylated molecules

#### For 10 mg/ml of PS Fluorescent Particles

| Diameter | Conc.<br>mg/ml | Particles/mg | Particles/ml | Diameter | Conc.<br>mg/ml | Particles/mg | Particles/ml |
|----------|----------------|--------------|--------------|----------|----------------|--------------|--------------|
| 25 nm    | 10             | 1.19E+14     | 1.19E+15     | 10 um    | 10             | 1.85E+06     | 1.85E+07     |
| 50 nm    | 10             | 1.48E+13     | 1.48E+14     | 20 um    | 10             | 2.32E+05     | 2.32E+06     |
| 100 nm   | 10             | 1.85E+12     | 1.85E+13     | 30 um    | 10             | 6.87E+04     | 6.87E+05     |
| 200 nm   | 10             | 2.32E+11     | 2.32E+12     | 40 um    | 10             | 2.90E+04     | 2.90E+05     |
| 300 nm   | 10             | 6.87E+10     | 6.87E+11     | 50 um    | 10             | 1.48E+04     | 1.48E+05     |
| 400 nm   | 10             | 2.90E+10     | 2.90E+11     | 60 um    | 10             | 8.58E+03     | 8.58E+04     |
| 500 nm   | 10             | 1.48E+10     | 1.48E+11     | 70 um    | 10             | 5.41E+03     | 5.41E+04     |
| 600 nm   | 10             | 8.58E+09     | 8.58E+10     | 80 um    | 10             | 3.62E+03     | 3.62E+04     |
| 700 nm   | 10             | 5.41E+09     | 5.41E+10     | 90 um    | 10             | 2.54E+03     | 2.54E+04     |
| 800 nm   | 10             | 3.62E+09     | 3.62E+10     | 100 um   | 10             | 1.85E+03     | 1.85E+04     |
| 900 nm   | 10             | 2.54E+09     | 2.54E+10     | 200 um   | 10             | 2.32E+02     | 2.32E+03     |
| 1 um     | 10             | 1.85E+09     | 1.85E+10     | 300 um   | 10             | 6.87E+01     | 6.87E+02     |
| 2 um     | 10             | 2.32E+08     | 2.32E+09     | 400 um   | 10             | 2.90E+01     | 2.90E+02     |
| 3 um     | 10             | 6.87E+07     | 6.87E+08     | 500 um   | 10             | 1.48E+01     | 1.48E+02     |
| 4 um     | 10             | 2.90E+07     | 2.90E+08     | 600 um   | 10             | 8.58E+00     | 8.58E+01     |
| 5 um     | 10             | 1.48E+07     | 1.48E+08     | 700 um   | 10             | 5.41E+00     | 5.41E+01     |
| 6 um     | 10             | 8.58E+06     | 8.58E+07     | 800 um   | 10             | 3.62E+00     | 3.62E+01     |
| 7 um     | 10             | 5.41E+06     | 5.41E+07     | 900 um   | 10             | 2.54E+00     | 2.54E+01     |

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|      |    |          |          |      |    |          |          |
|------|----|----------|----------|------|----|----------|----------|
| 8 um | 10 | 3.62E+06 | 3.62E+07 | 1 mm | 10 | 1.85E+00 | 1.85E+01 |
| 9 um | 10 | 2.54E+06 | 2.54E+07 | 3 mm | 10 | 6.87E-02 | 6.87E-01 |

#### 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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