



PRODUCT DATA SHEET

Polystyrene Particles-Protein G

Description

Abvigen has developed a large selection of polystyrene micro- and nanoparticles. Polystyrene particles and Microparticles are highly spherical plastic particles in sizes between 0.7 μm to 6 μm . The polystyrene particles are prepared by using emulsion polymerization process. Coated or conjugated particles are prepared either by passive adsorption or covalent coupling.

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

website: www.abvigen.com Phone: +1 929-202-3014 Email: info@abvigenus.com

Characteristics

Core diameter: 0.7 μm to 6 μm

Size: 10 ml; 20 ml; 50 ml; 100 ml

Shape: Spherical

Concentration: 1 mg/ml; 5 mg/ml

Density: 1.03 g/ccm

Composition: Polystyrene Particles

Buffer: DI Water

Form: Suspension

Colour: White

Storage

This product should be stored at 4°C. **DO NOT FREEZE.** If stored unopened and as specified, Abvigen Polystyrene Particles are stable for at least 12 months.

Highlights

Superior size distribution compared to the leading competitor

Available from 0.7 μm to 6 μm

Size Standards

Exceptional protein binding characteristics

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Available with multiple surface functionalities to suit all your needs

NPS of Polystyrene particles, 1 mg/ml

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

NPS of Polystyrene particles, 5 mg/ml

Diameter	Conc. mg/ml	Particles/mg	Particles/ml	Diameter	Conc. mg/ml	Particles/mg	Particles/ml
25 nm	5	1.19E+14	5.93E+14	10 um	5	1.85E+06	9.27E+06

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50 nm	5	1.48E+13	7.42E+13	20 um	5	2.32E+05	1.16E+06
100 nm	5	1.85E+12	9.27E+12	30 um	5	6.87E+04	3.43E+05
200 nm	5	2.32E+11	1.16E+12	40 um	5	2.90E+04	1.45E+05
300 nm	5	6.87E+10	3.43E+11	50 um	5	1.48E+04	7.42E+04
400 nm	5	2.90E+10	1.45E+11	60 um	5	8.58E+03	4.29E+04
500 nm	5	1.48E+10	7.42E+10	70 um	5	5.41E+03	2.70E+04
600 nm	5	8.58E+09	4.29E+10	80 um	5	3.62E+03	1.81E+04
700 nm	5	5.41E+09	2.70E+10	90 um	5	2.54E+03	1.27E+04
800 nm	5	3.62E+09	1.81E+10	100 um	5	1.85E+03	9.27E+03
900 nm	5	2.54E+09	1.27E+10	200 um	5	2.32E+02	1.16E+03
1 um	5	1.85E+09	9.27E+09	300 um	5	6.87E+01	3.43E+02
2 um	5	2.32E+08	1.16E+09	400 um	5	2.90E+01	1.45E+02
3 um	5	6.87E+07	3.43E+08	500 um	5	1.48E+01	7.42E+01
4 um	5	2.90E+07	1.45E+08	600 um	5	8.58E+00	4.29E+01
5 um	5	1.48E+07	7.42E+07	700 um	5	5.41E+00	2.70E+01
6 um	5	8.58E+06	4.29E+07	800 um	5	3.62E+00	1.81E+01
7 um	5	5.41E+06	2.70E+07	900 um	5	2.54E+00	1.27E+01
8 um	5	3.62E+06	1.81E+07	1 mm	5	1.85E+00	9.27E+00
9 um	5	2.54E+06	1.27E+07	3 mm	5	6.87E-02	3.43E-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

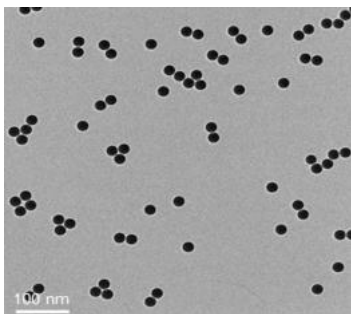
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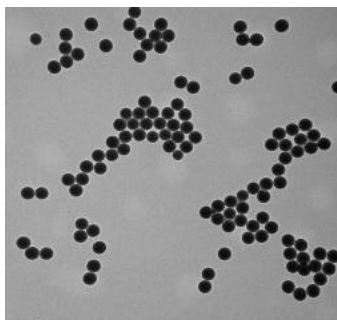
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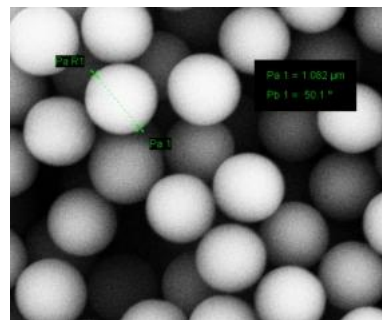
2 – 4 μm	1,600 x g	15 min	vortex
5 - 8 μm	1,200 x g	10 min	vortex
> 8 μm	25 x g	10 min	vortex



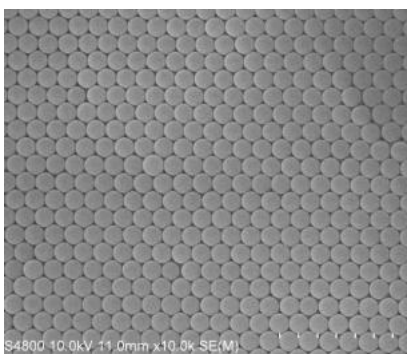
20 nm



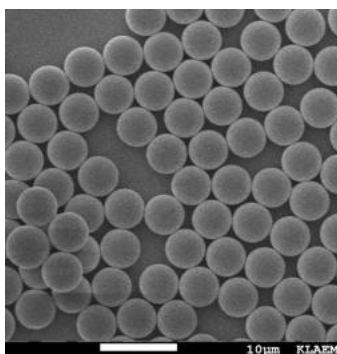
300 nm



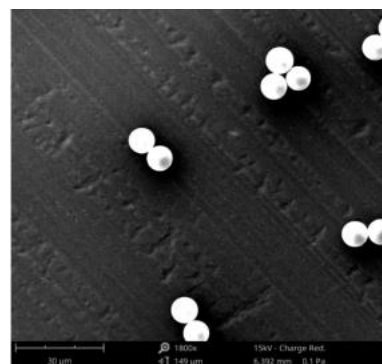
1 μm



500 nm



5 μm



10 μm

Ordering Information

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