



PRODUCT DATA SHEET

NR3+ Polystyrene Particles

Description

Abvigen has developed a large selection of polystyrene micro- and nanoparticles. Polystyrene particles and Microparticles are highly spherical plastic particles in sizes between 100 nm to 12 μ m. 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: 100 nm to 12 μ m

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

Shape: Spherical

Concentration: 25 mg/ml; 50 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 100 nm to 12 μ m

Size Standards

Exceptional protein binding characteristics

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Available with multiple surface functionalities to suit all your needs

NPS of Polystyrene particles, 25 mg/ml

Diameter	Conc. mg/ml	Particles/mg	Particles/ml	Diameter	Conc. mg/ml	Particles/mg	Particles/ml
25 nm	25	1.19E+14	2.97E+15	10 um	25	1.85E+06	4.64E+07
50 nm	25	1.48E+13	3.71E+14	20 um	25	2.32E+05	5.79E+06
100 nm	25	1.85E+12	4.64E+13	30 um	25	6.87E+04	1.72E+06
200 nm	25	2.32E+11	5.79E+12	40 um	25	2.90E+04	7.24E+05
300 nm	25	6.87E+10	1.72E+12	50 um	25	1.48E+04	3.71E+05
400 nm	25	2.90E+10	7.24E+11	60 um	25	8.58E+03	2.15E+05
500 nm	25	1.48E+10	3.71E+11	70 um	25	5.41E+03	1.35E+05
600 nm	25	8.58E+09	2.15E+11	80 um	25	3.62E+03	9.05E+04
700 nm	25	5.41E+09	1.35E+11	90 um	25	2.54E+03	6.36E+04
800 nm	25	3.62E+09	9.05E+10	100 um	25	1.85E+03	4.64E+04
900 nm	25	2.54E+09	6.36E+10	200 um	25	2.32E+02	5.79E+03
1 um	25	1.85E+09	4.64E+10	300 um	25	6.87E+01	1.72E+03
2 um	25	2.32E+08	5.79E+09	400 um	25	2.90E+01	7.24E+02
3 um	25	6.87E+07	1.72E+09	500 um	25	1.48E+01	3.71E+02
4 um	25	2.90E+07	7.24E+08	600 um	25	8.58E+00	2.15E+02
5 um	25	1.48E+07	3.71E+08	700 um	25	5.41E+00	1.35E+02
6 um	25	8.58E+06	2.15E+08	800 um	25	3.62E+00	9.05E+01
7 um	25	5.41E+06	1.35E+08	900 um	25	2.54E+00	6.36E+01
8 um	25	3.62E+06	9.05E+07	1 mm	25	1.85E+00	4.64E+01
9 um	25	2.54E+06	6.36E+07	3 mm	25	6.87E-02	1.72E+00

NPS of Polystyrene particles, 50 mg/ml

Diameter	Conc. mg/ml	Particles/mg	Particles/ml	Diameter	Conc. mg/ml	Particles/mg	Particles/ml
25 nm	50	1.19E+14	1.19E+15	10 um	50	1.85E+06	1.85E+07
50 nm	50	1.48E+13	1.48E+14	20 um	50	2.32E+05	2.32E+06

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100 nm	50	1.85E+12	1.85E+13	30 μ m	50	6.87E+04	6.87E+05
200 nm	50	2.32E+11	2.32E+12	40 μ m	50	2.90E+04	2.90E+05
300 nm	50	6.87E+10	6.87E+11	50 μ m	50	1.48E+04	1.48E+05
400 nm	50	2.90E+10	2.90E+11	60 μ m	50	8.58E+03	8.58E+04
500 nm	50	1.48E+10	1.48E+11	70 μ m	50	5.41E+03	5.41E+04
600 nm	50	8.58E+09	8.58E+10	80 μ m	50	3.62E+03	3.62E+04
700 nm	50	5.41E+09	5.41E+10	90 μ m	50	2.54E+03	2.54E+04
800 nm	50	3.62E+09	3.62E+10	100 μ m	50	1.85E+03	1.85E+04
900 nm	50	2.54E+09	2.54E+10	200 μ m	50	2.32E+02	2.32E+03
1 μ m	50	1.85E+09	1.85E+10	300 μ m	50	6.87E+01	6.87E+02
2 μ m	50	2.32E+08	2.32E+09	400 μ m	50	2.90E+01	2.90E+02
3 μ m	50	6.87E+07	6.87E+08	500 μ m	50	1.48E+01	1.48E+02
4 μ m	50	2.90E+07	2.90E+08	600 μ m	50	8.58E+00	8.58E+01
5 μ m	50	1.48E+07	1.48E+08	700 μ m	50	5.41E+00	5.41E+01
6 μ m	50	8.58E+06	8.58E+07	800 μ m	50	3.62E+00	3.62E+01
7 μ m	50	5.41E+06	5.41E+07	900 μ m	50	2.54E+00	2.54E+01
8 μ m	50	3.62E+06	3.62E+07	1 mm	50	1.85E+00	1.85E+01
9 μ m	50	2.54E+06	2.54E+07	3 mm	50	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 μ m	3,500 x g	15 min	10 min sonication / vortex
2 – 4 μ m	1,600 x g	15 min	vortex
5 - 8 μ m	1,200 x g	10 min	vortex

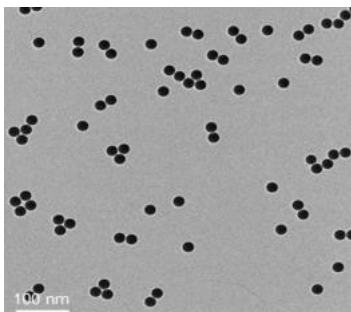
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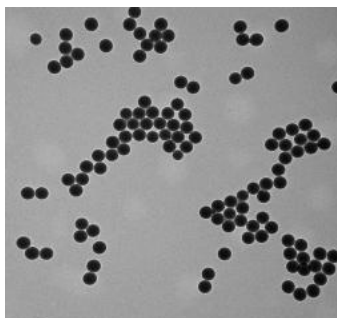
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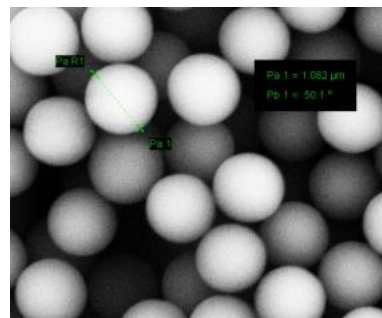
> 8 μm	25 x g	10 min	vortex
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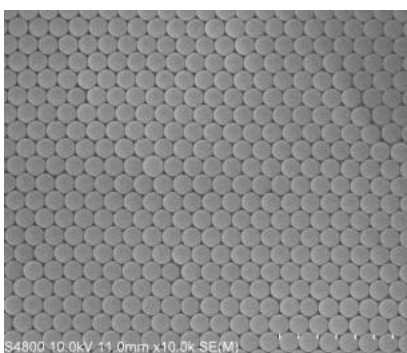
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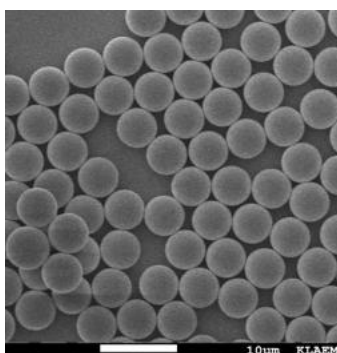
300 nm



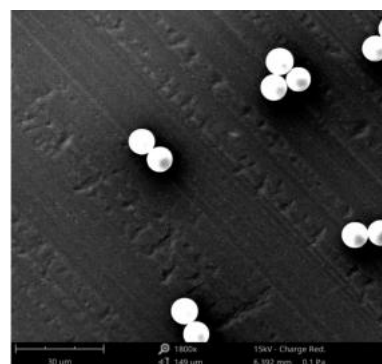
1 μm



500 nm



5 μm



10 μm

Ordering Information

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