



PRODUCT DATA SHEET

Silica Particles-Ni-NTA

Description

Silica Particles are spherical in shape and can be made to have a broad range of sizes and their surface chemistry easily modified to target a variety of applications. Silica Particles-Ni-NTA are offered with the nickel(II)-nitrilotriacetic acid (Ni-NTA) complex in the size range of 100 nm to 200 μ m for the binding of histidine labeled proteins. Recombinant proteins containing a 6xhistidine-tag can be purified by Ni-NTA (nickel-nitrilotriacetic acid) chromatography which is based on the interaction between a transition Ni^{2+} ion immobilized on a matrix and the histidine side chains. Following washing of the matrix 6xhistidine-tag fusion proteins can be eluted by adding free imidazole or EDTA or by reducing the pH.

Abvigen offers a comprehensive list of basic, coated, functional and conjugated silica particles with uniform size and shapes. Our silica particles in the size range of 50 nm to 200 μ m are monodisperse and nonporous particles with a density of 1.8 g/cm³.

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

Diameter: 100 nm -200 μ m

Size: 10 ml; 20 ml; 50 ml; 100 ml; 500 ml

Concentration: 50 mg/ml

Composition: Silica Particles

Density: 1.8 g/ccm

Shape: Spherical

Functional Group: Ni-NTA

Buffer: DI Water

Form: Suspension

Colour: white

Highlights



Not Displaceable: strongly bound to the particle surface

Negatively Charged

Highly uniform size and shapes

Wide size ranges from 50 nm-200 μ m

Dispersive in a wide range of solvents with a high degree of stability

Various surface properties: coated, functionalized and conjugated

Designed for the covalent binding of proteins, antibodies or other molecules

Allows engineering of controlled aggregates

Applications

Photothermal applications

Color applications

Controlled aggregation

Protein adsorption and separation

Nucleic acid detection and purification

Drug and gene delivery

Imaging contrast agents construction

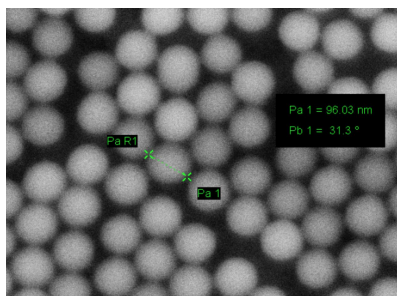
Biodiagnostic and nanomedicine applications

Storage

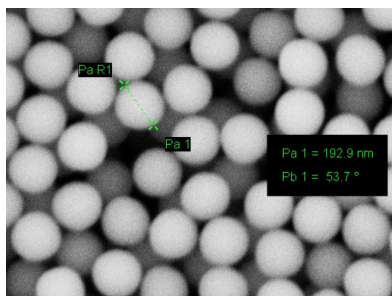
This product should be stored at room temperature. **DO NOT FREEZE.** If stored unopened and as specified, Abvigen Plain Silica Particles are stable for 12 months.

NPS of Silica Particles

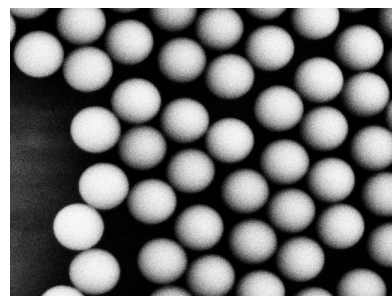
Diameter	Conc.(m g/ml)	Particles/mg	Particles/ml	Diameter	Conc.(m g/ml)	Particles/m g	Particles/ml
10 nm	25	1.06E+15	2.65E+16	3 um	50	3.93E+07	1.96E+09
20 nm	25	1.33E+14	3.32E+15	4.0 um	50	1.66E+07	8.29E+08
30 nm	25	3.93E+13	9.82E+14	5 um	50	8.49E+06	4.24E+08
50 nm	25	8.49E+12	2.12E+14	6.0 um	50	4.91E+06	2.46E+08
70 nm	25	3.09E+12	7.73E+13	7.0 um	50	3.09E+06	1.55E+08
100 nm	50	1.06E+12	5.31E+13	8.0 um	50	2.07E+06	1.04E+08
150 nm	50	3.14E+11	1.57E+13	9.0 um	50	1.46E+06	7.28E+07
200 nm	50	1.33E+11	6.63E+12	10 um	50	1.06E+06	5.31E+07
300 nm	50	3.93E+10	1.96E+12	15 um	50	3.14E+05	1.57E+07
350 nm	50	2.47E+10	1.24E+12	20 um	50	1.33E+05	6.63E+06
400 nm	50	1.66E+10	8.29E+11	30um	50	3.93E+04	1.96E+06
500 nm	50	8.49E+09	4.24E+11	40 um	50	1.66E+04	8.29E+05
600 nm	50	4.91E+09	2.46E+11	50 um	50	8.49E+03	4.24E+05
700 nm	50	3.09E+09	1.55E+11	60 um	50	4.91E+03	2.46E+05
800 nm	50	2.07E+09	1.04E+11	70 um	50	3.09E+03	1.55E+05
900 nm	50	1.46E+09	7.28E+10	80 um	50	2.07E+03	1.04E+05
1 um	50	1.06E+09	5.31E+10	900 um	50	1.46E+03	7.28E+04
1.5 um	50	3.14E+08	1.57E+10	100 um	50	1.06E+03	5.31E+04
2.0 um	50	1.33E+08	6.63E+09	200 um	50	1.33E+02	6.63E+03



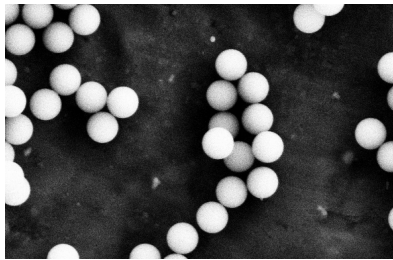
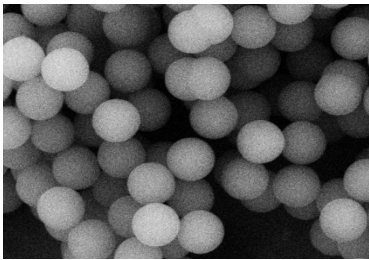
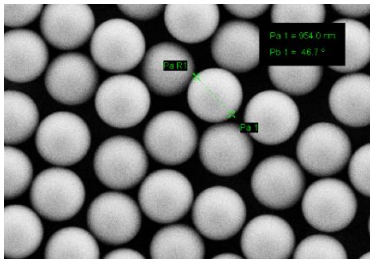
100 nm



200 nm



400 nm

		
700 nm	900 nm	1 um

Ordering Information

website: www.abvigen.com

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