



Gold Nanoparticles-PAA PRODUCT DATA SHEET

Gold Nanoparticles-PAA

Description

Gold nanoparticles are widely used nanomaterials and generally referred to as colloidal gold in biological research. Colloidal gold markers generally has a particle size between 10 and 100 nm, and will show different colors with the change of particle size. Gold nanoparticles have excellent biocompatibility, rich surface modification properties, and unique optical properties related to the surfactant, shape, size, and structure of the nanoparticles. According to their different characteristics, it can be applied to various fields of biomedicine, such as medical testing, medical imaging, drug delivery, etc.

Abvigen provides a variety of gold nanoparticles, gold nanorods, gold nanocages, gold nanostars, gold nanobipyramids, and other products, the product particle size is optional, the concentration can be customized, the surface can be modified with different groups, and can be appropriately selected according to the customer's use.

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: 5 nm -1500 nm

Size: 20 ml; 100 ml

Optical density: OD 1

Composition: Gold Nanoparticles-PAA

Shape: Spherical

Buffer: DI Water

Form: Suspension

Storage

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

Email: info@abvigenus.com

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

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This product should be stored at 4°C. **DO NOT FREEZE.** If stored unopened and as specified, Abvigen Gold Nanoparticles-PAA are stable for 6 months.

NPS of Gold Nanoparticles, OD 1

Diameter	Peak SPR Wavelength	Optical density	Wt. conc	Size Dispersity %PDI	Particles/ml	Molarity mol/ml
1.8 nm	505-508 nm	OD 1	0.05 mg/ml	<35%	8.48E+14	1.41E-09
3 nm	505-508 nm	OD 1	0.05 mg/ml	<20%	1.83E+14	3.04E-10
5 nm	515-520 nm	OD 1	0.05 mg/ml	<20%	3.95E+13	6.57E-11
10 nm	520 nm	OD 1	0.05 mg/ml	<15%	4.94E+12	8.21E-12
20 nm	524 nm	OD 1	0.05 mg/ml	<10%	6.18E+11	1.03E-12
30 nm	526 nm	OD 1	0.05 mg/ml	<6%	1.83E+11	3.04E-13
40 nm	530 nm	OD 1	0.05 mg/ml	<4%	7.72E+10	1.28E-13
50 nm	535 nm	OD 1	0.05 mg/ml	<4%	3.95E+10	6.57E-14
60 nm	540 nm	OD 1	0.05 mg/ml	<4%	2.29E+10	3.80E-14
70 nm	548 nm	OD 1	0.05 mg/ml	<4%	1.44E+10	2.39E-14
80 nm	553 nm	OD 1	0.05 mg/ml	<4%	9.65E+09	1.60E-14
90 nm	564 nm	OD 1	0.05 mg/ml	<4%	6.78E+09	1.13E-14
100 nm	572 nm	OD 1	0.05 mg/ml	<4%	4.94E+09	8.21E-15
150 nm	612 nm	OD 1	0.05 mg/ml	<4%	1.46E+09	2.43E-15

Gold Nanoparticles Centrifugation Parameters

Particle Size	Speed (g)	Time (min)
5 nm	100000	30
10 nm	17000	60 (~50% recovery
15 nm	17000	30
20 nm	6500	30
30 nm	4500	30
40 nm	2500	30
50 nm	2000	30
60 nm	1125	30
80 nm	400	30

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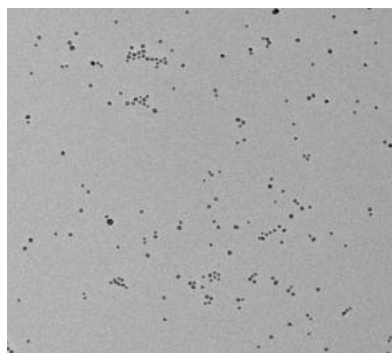
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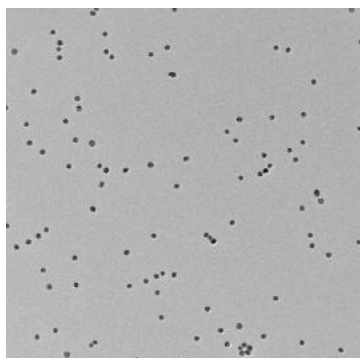
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100 nm	400	30
150 nm	180	30
200 nm	100	30

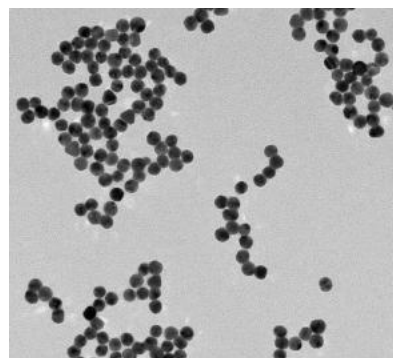
TEM of Abvigen gold nanoparticles of different sizes



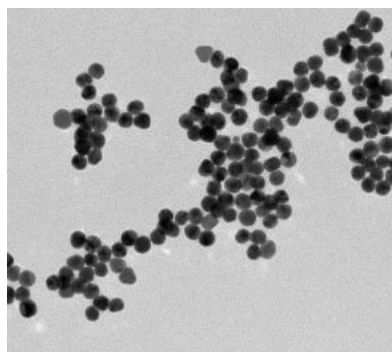
5 nm



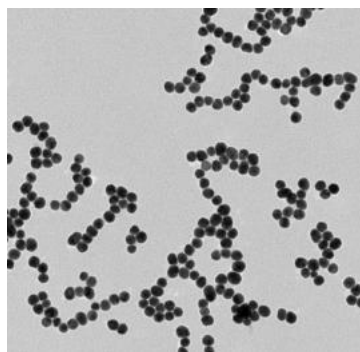
10 nm



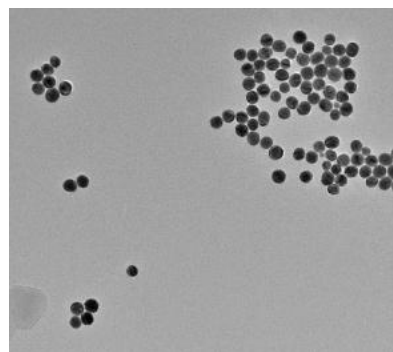
15 nm



20 nm



30 nm



40 nm

Ordering Information

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