



PRODUCT DATA SHEET

Gold Nanoparticles-AF647

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: 1.8 nm -1500 nm

Size: 1 ml

Optical density: OD 50

Concentration: 2.5 mg/ml

Excitation: 650 nm

Emission: 665 nm

Composition: Gold nanoparticles

Shape: Spherical

Functional Group: NH₂/COOH/Biotin or other can choose

Buffer: DI Water

Form: Suspension



Storage

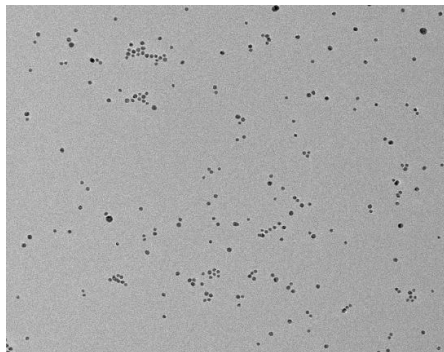
This product should be stored at 4°C. **DO NOT FREEZE**. If stored unopened and as specified, Abvigen Gold Nanoparticles-AF647 are stable for 3 months.

Diameter	Peak SPR Wavelength	Optical density	Wt. conc	Size Dispersity %PDI	Particles/ml	Molarity mol/ml
1.8 nm	505-508 nm	OD 50	2.5 mg/ml	<35%	4.24E+16	7.04E-08
3 nm	505-508 nm	OD 50	2.5 mg/ml	<20%	9.15E+15	1.52E-08
5 nm	515-520 nm	OD 50	2.5 mg/ml	<20%	1.98E+15	3.28E-09
10 nm	520 nm	OD 50	2.5 mg/ml	<15%	2.47E+14	4.10E-10
20 nm	524 nm	OD 50	2.5 mg/ml	<10%	3.09E+13	5.13E-11
30 nm	526 nm	OD 50	2.5 mg/ml	<6%	9.15E+12	1.52E-11
40 nm	530 nm	OD 50	2.5 mg/ml	<4%	3.86E+12	6.41E-12
50 nm	535 nm	OD 50	2.5 mg/ml	<4%	1.98E+12	3.28E-12
60 nm	540 nm	OD 50	2.5 mg/ml	<4%	1.14E+12	1.90E-12
70 nm	548 nm	OD 50	2.5 mg/ml	<4%	7.21E+11	1.20E-12
80 nm	553 nm	OD 50	2.5 mg/ml	<4%	4.83E+11	8.02E-13
90 nm	564 nm	OD 50	2.5 mg/ml	<4%	3.39E+11	5.63E-13
100 nm	572 nm	OD 50	2.5 mg/ml	<4%	2.47E+11	4.10E-13
150 nm	612 nm	OD 50	2.5 mg/ml	<4%	7.32E+10	1.22E-13

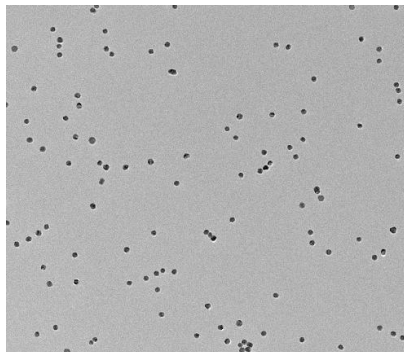
Gold Nanoparticles Centrifugation Parameters

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

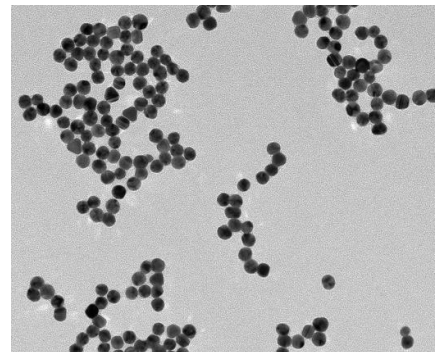
TEM of Abvigen gold nanoparticles of different sizes



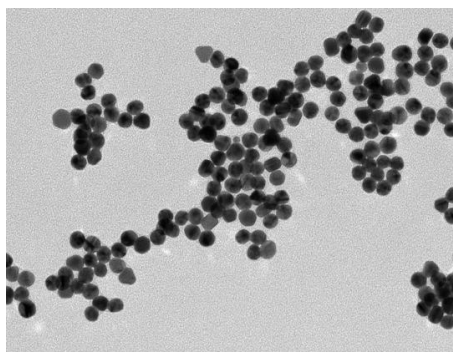
5 nm



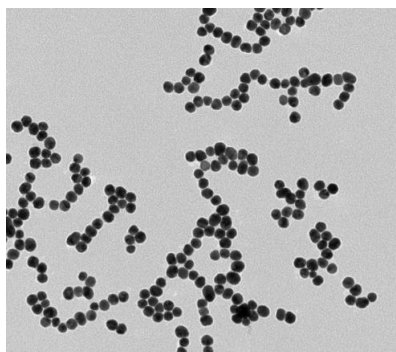
10 nm



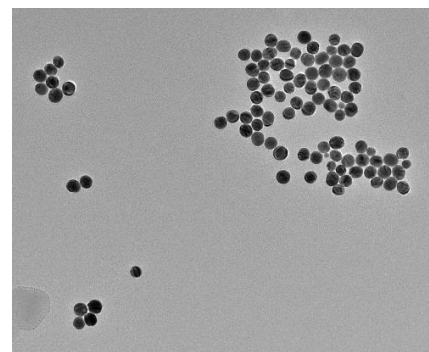
15 nm



20 nm



30 nm



40 nm

Ordering Information

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