

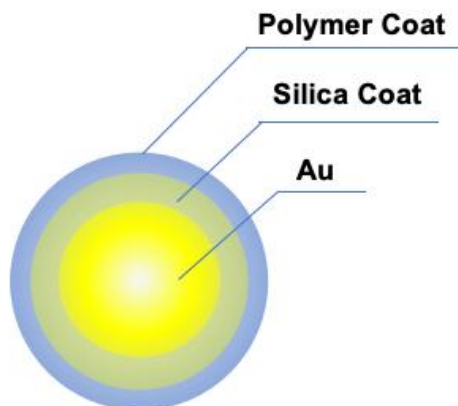


Plain Silica Coated Gold Particles PRODUCT DATA SHEET

Plain Silica Coated Gold Particles

Description

Silica Coated Gold Particles are a type of composite nanomaterial composed of gold nanoparticles coated with silicon dioxide. This composite nanomaterial exhibits the Surface Enhanced Raman Scattering (SERS) effect of Gold Particles and the excellent biocompatibility and chemical stability of silica. The presence of a silica shell greatly enhances the stability of Gold Particles while reducing their cytotoxicity. The silica shell has a good chemical modification effect, which can label fluorescent probe molecules on the surface of the silica shell. The modified Silica Coated Gold Particles can enter cells through endocytosis, thereby achieving optical imaging inside cells. Silica Coated Gold Particles exhibit significant resonance absorption properties and localized electric field enhancement effects in the visible light range, making them suitable for enhancing spectral signals. And it has wide applications in the fields of biosensing, molecular imaging, drug delivery, photothermal therapy, and catalysis.



Abvigen Inc can provide high-quality Plain Silicon Coated Gold Particles with a variety of particle sizes. The thickness of the silica shell layer can be selected, the particle size is uniform, and the stability is good. It can meet the personalized material needs of various customers in research and development, testing, production, and consumption.

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



OD: 50

Size: 1 ml or others

Diameter: 1.8 nm - 1500 nm

Surface: Plain

Shape: Spherical

Composition: Silica Coated Gold Particles

Silica Thickness: 3 nm/ 5 nm/ 10 nm/ 20 nm/ 30 nm

Buffer: DI Water

Monodispersity: > 99.9%

Store: Storage at 4 °C

For 50 OD of Plain Silica Coated Gold Particles

Cat No	Diameter (nm)	Peak SPR Wavelength (nm)	NPS/ml	Molarity (pM)	Moles	Molar Ext. (M-1cm-1)
ASCGN-1.8	1.8	—	4.25E+16	7.10E+07	7.09E-08	7.05E+05
ASCGN-2.2	2.2	—	2.33E+16	3.90E+07	3.88E-08	1.29E+06
ASCGN-3	3	—	9.19E+15	1.50E+07	1.53E-08	3.26E+06
ASCGN-4	4	—	3.88E+15	6.50E+06	6.46E-09	7.74E+06
ASCGN-5	5	512	1.99E+15	3.30E+06	3.31E-09	1.51E+07
ASCGN-10	10	516	2.48E+14	4.10E+05	4.14E-10	1.21E+08
ASCGN-15	15	518	7.35E+13	1.20E+05	1.23E-10	4.08E+08
ASCGN-20	20	520	3.10E+13	5.20E+04	5.17E-11	9.67E+08
ASCGN-25	25	521	1.59E+13	2.60E+04	2.65E-11	1.89E+09
ASCGN-30	30	523	9.19E+12	1.50E+04	1.53E-11	3.26E+09
ASCGN-35	35	526	5.79E+12	9.60E+03	9.65E-12	5.18E+09
ASCGN-40	40	527	3.88E+12	6.50E+03	6.46E-12	7.74E+09
ASCGN-45	45	529	2.72E+12	4.50E+03	4.54E-12	1.10E+10
ASCGN-50	50	531	1.99E+12	3.30E+03	3.31E-12	1.51E+10
ASCGN-55	55	533	1.49E+12	2.50E+03	2.49E-12	2.01E+10
ASCGN-60	60	536	1.15E+12	1.90E+03	1.91E-12	2.61E+10
ASCGN-65	65	539	9.04E+11	1.50E+03	1.51E-12	3.32E+10
ASCGN-70	70	542	7.23E+11	1.20E+03	1.21E-12	4.15E+10



ASCGN-75	75	545	5.88E+11	9.80E+02	9.80E-13	5.10E+10
ASCGN-80	80	549	4.85E+11	8.10E+02	8.08E-13	6.19E+10
ASCGN-85	85	553	4.04E+11	6.70E+02	6.73E-13	7.42E+10
ASCGN-90	90	558	3.40E+11	5.70E+02	5.67E-13	8.81E+10
ASCGN-95	95	563	2.89E+11	4.80E+02	4.82E-13	1.04E+11
ASCGN-100	100	569	2.48E+11	4.10E+02	4.14E-13	1.21E+11
ASCGN-150	150	612	7.35E+10	1.20E+02	1.23E-13	4.08E+11
ASCGN-200	200	—	3.10E+10	5.20E+01	5.17E-14	9.67E+11
ASCGN-500	500	—	1.99E+09	3.30E+00	3.31E-15	1.51E+13
ASCGN-1000	1000	—	2.48E+08	4.10E-01	4.14E-16	1.21E+14
ASCGN-1500	1500	—	7.35E+07	1.20E-01	1.23E-16	4.08E+14

Advantage

Good chemical stability

Strong photothermal conversion ability

Uniform particle size

Good biocompatibility

Surface modifiable

Applications

Spectral signal enhancement

Biosensor materials

Molecular imaging

Drug delivery

Chemical catalysis

Storage

This product should be stored at 4°C. **DO NOT FREEZE.**

Ordering Information

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