

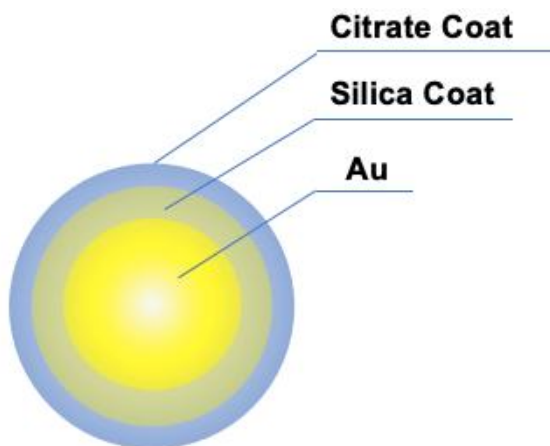


Silica Coated Gold Particles-CIT PRODUCT DATA SHEET

Silica Coated Gold Particles-CIT

Description

Silica Coated Gold Particles is a composite nanomaterial composed of Gold Particles coated with a silica shell. This composite nanomaterial exhibits the Surface Enhanced Raman Scattering effect of Gold Particles and excellent biocompatibility of silica. The presence of silica shell enhances the stability of Gold Particles while reducing their cytotoxicity. Silica shell has good chemical modification effect, and by modifying the surface of silica shell with citrate, Silica Coated Gold Particles-CIT can be obtained. Silica Coated Gold Particles-CIT can increase its stability in solution by forming complexes with the surface of gold nanorods, preventing the aggregation or precipitation of nanoparticles. Citrate modification can introduce functional groups such as carboxyl groups, thereby altering the surface chemical properties of Gold Particles, making them more prone to react with other molecules or biomolecules, enhancing their applications in catalysis, sensing, and other fields. This material has a wide range of applications in fields such as biosensing, molecular imaging, drug delivery, photothermal therapy, and catalysis.



Abvigen Inc can provide high-quality Silica Coated Gold Particles-CIT 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: Citrate

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 Silica Coated Gold Particles-CIT

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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