

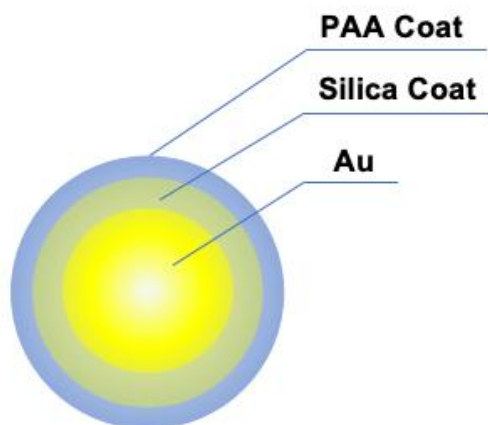


Silica Coated Gold Particles-PAA PRODUCT DATA SHEET

Silica Coated Gold Particles-PAA

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 toxicity to cells. Silica shell has good chemical modification effect. By modifying the surface of silica layer with PAA, Silica Coated Gold Particles-PAA can be obtained. PAA as a surface modifier, can effectively improve the stability of Silica Coated Gold Particles and further enhance their biocompatibility. PAA can effectively enhance the optical performance of Silica Coated Gold Particles, resist external environmental interference, and maintain their optical properties. This structure is commonly used in pulsed lasers, and the silicon dioxide coating enhances the thermodynamic stability of Gold Particles, allowing them to maintain their optical properties at higher light intensity levels. Silica Coated Gold Particles-PAA 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-PAA 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: PAA

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-PAA

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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