

Silica-Coated NITgold Nanostars 50 nm

STORE AT Room Temperature away from light

Description

We commercialize high quality Gold nanostars, formed by multiple branches with sharp tips with highly-competitive characteristics guarantying to meet specifications. Our Silica-Coated Gold nanostars are available in size 40 nm (core) but can be produced in other sizes upon request.

SILICA COATED: silica coating confers thermodynamic and colloidal stability to gold nanostars.

Technical Specifications

Core composition: Gold

Shell composition: Silica

Peak SPR wavelength: 697 nm

Particle diameter: 54.5 ± 2.9 nm

Core diameter: 43.9 ± 2.0 nm

Silica thickness: 10.6 ± 0.9 nm

Solvent: Ethanol

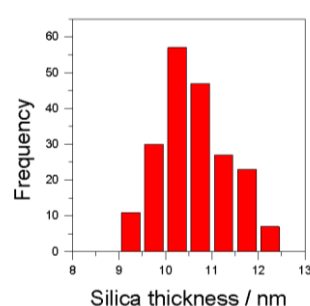
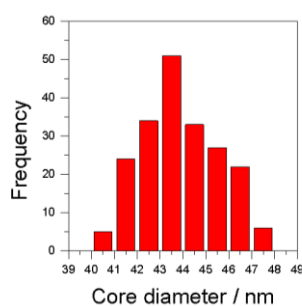
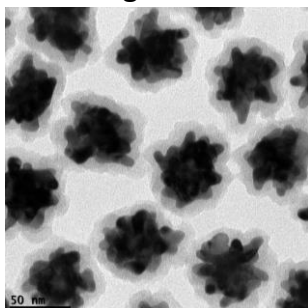
Gold Concentration: 0.20 mM

O.D.: 1

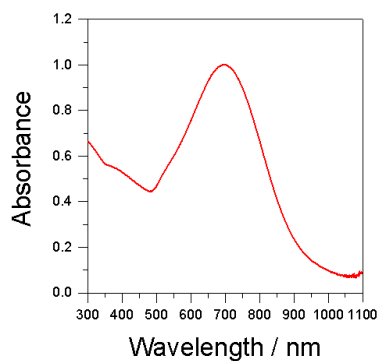
Weight concentration : 0.040 mg/mL

Purity: High (excess reagents and side products removed by centrifugation)

TEM Image



UV/visible absorbance spectrum



Suggested Application(s)

- Surface Enhanced Raman Spectroscopy
- Biosensing
- Colorimetric probes

References:

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- 3.- Barbosa, S., Agrawal, A., Rodríguez-Lorenzo, L., Pastoriza-Santos, I., Alvarez-Puebla, R. A., Kornowski, A., Weller, H., Liz-Marzán, L. M. Tuning Size and Sensing Properties in Colloidal Gold Nanostars. *Langmuir*, **2010**, *26*, 14943–14950.
- 4.- Guerrero-Martínez, A., Barbosa, S., Pastoriza-Santos, I., Liz-Marzán, L. M. Nanostars Shine Bright for You: Colloidal Synthesis, Properties and Applications of Branched Metallic Nanoparticles. *Curr. Op. Colloid Interface Sci.* **2011**, *16*, 118–127.
- 5.- Rodríguez-Lorenzo, L., Krpetic, Z., Barbosa, S., Alvarez-Puebla, R. A., Liz-Marzán, L. M.; Prior, I. A.; Brust, M. Intracellular Mapping with SERS-Encoded Gold Nanostars. *Integr. Biol.* **2011**, *3*, 922–926.
- 6.- Fales A. M., Yuan H., Vo-Dinh T. Silica-Coated Gold Nanostars for Combined Surface-Enhanced Raman Scattering (SERS) Detection and Singlet-Oxygen Generation: A Potential Nanoplatform for Theranostics. *Langmuir*, **2011**, *27* (19), 12186–12190.
- 7.- Xie H., Lin Y., Mazo M., Chiappini C., Sánchez-Iglesias A., Liz-Marzán L. M., Stevens M. M. Identification of Intracellular Gold Nanoparticles Using Surface-enhanced Raman Scattering. *Nanoscale*, **2014**, *6*, 12403-12407.

Ordering Information

Order by Email: sales@nanoimmunotech.es

Product disclaimer

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¹ Since conditions of use are beyond our control, we do not warranty the suitability of our products.

