

NITgold Lipoic 3nm

STORE AT 4°C away from light. DO NOT FREEZE

Description

Lipoic capped gold nanoparticles are uniform spherical gold nanoparticles with a high monodisperse particle size distribution. These nanoparticles are derivatized with a self-assembly monolayer of thioctic acid carrying a carboxylate end group, which can be used as an excellent scaffold for further stepwise modification to immobilize biomolecules. Once functionalized, they can be employed as platforms for many applications such as target-specific drug delivery, sensors, imaging probes for dark-field microscopy, cancer photothermal therapy and optoelectronic. AuNPs show long-term stability in biological media at pH>6.0 for nearly a year.

Technical Specifications

Particle Surface: Thioctic acid capping

Peak SPR wavelength: 510 ± 2 nm

Average Diameter:¹ 2.9 nm

Particle Diameter (TEM): 2.9 ± 0.8 nm

Molar Concentration:² 0.6 μM

O.D.: 1

Particle Concentration: 3.4×10¹⁴ particles/mL

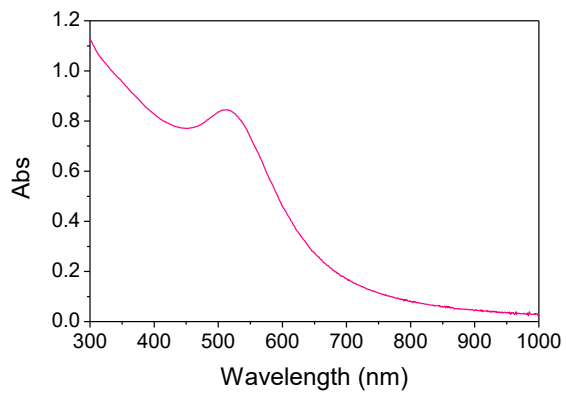
Solvent: 20 mM Hepes buffer, pH 7.5.

¹ Particle diameter determined by Surface Plasmon Resonance from the spectrum. Haiss et al. Anal. Chem. 2007, 79, 4215-4221.

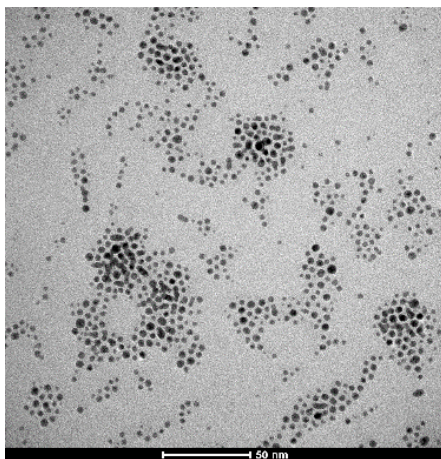
² Determined according to a $\epsilon = 1.76 \times 10^6 \text{ M}^{-1} \cdot \text{cm}^{-1}$. Werts et al. Analyst 2013,138, 583-592.



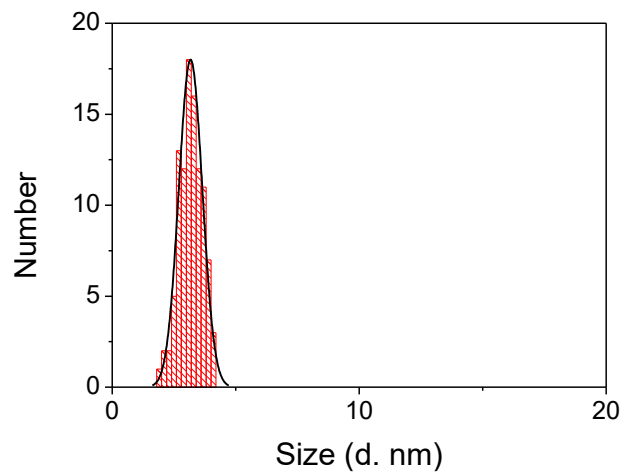
UV/visible absorbance spectrum



TEM image



Size histogram obtained by TEM



Suggested Application(s)¹

- Design of biosensors
- Target-specific drug-delivery
- Imaging probes for dark-field microscopy
- Cancer photothermal therapy
- Optoelectronic



Ordering Information

Product name	Nanoparticles/mL	O.D.	ϵ (M ⁻¹ cm ⁻¹)	Quantity	Catatalogue ref.
NITgold Lipoic 3nm	3.40E+14	1	1.76E+06	25 mL	51002717V
NITgold Lipoic 3nm	3.40E+14	1	1.76E+06	100 mL	510027160
NITgold Lipoic 3nm	3.40E+14	1	1.76E+06	250 mL	51002116C
NITgold Lipoic 3nm	3.40E+14	1	1.76E+06	500 mL	51002716F
NITgold Lipoic 3nm	1.02E+15	3	1.76E+06	25 mL	51002817V
NITgold Lipoic 3nm	1.02E+15	3	1.76E+06	100 mL	510028160
NITgold Lipoic 3nm	1.02E+15	3	1.76E+06	250 mL	51002816C

Order by Email: sales@nanoimmunotech.es

Product disclaimer

This nanoparticles product is to be used for research purposes only. Unless stated in the documentation of on an individual product label, catalogue or other information provided to the buyer, IT IS FORBIDDEN TO USE IT for different purposes, including but not limited to them: in vitro diagnostic, use in food, pharmaceutical purposes, medical purposes, or use in cosmetic products, neither for use in humans nor animals, nor for any commercial purposes. Please refer to www.nanoimmunotech.eu for the Material Safety Data Sheet of the product.

The information given in this document is to the best of our knowledge.

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

