

NITgold Clusters—COOH 0.8nm

#5100024

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

Description

Sub-nanometric gold clusters terminated by carboxylic acid groups are highly stable in aqueous media and they can be used to immobilize covalently biomolecules (antibodies, proteins) by formation of stable amide bonds with primary amines. In addition, they exhibit intrinsic fluorescence associated to their small size. They can be employed for different applications such as immunocytochemical approaches, immunoprobes for correlative microscopy, immunogold labelling.

Technical Specifications

Particle Surface: Carboxylate groups

Average Diameter (UHRTEM): ~ 0.8 – 1.0 nm

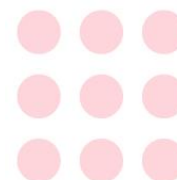
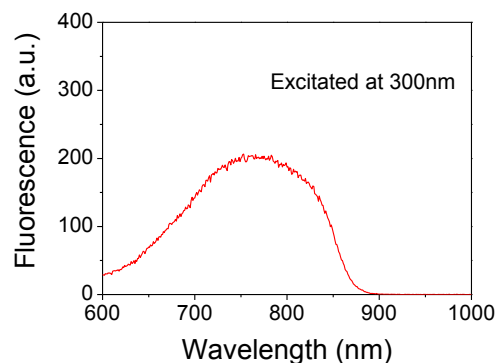
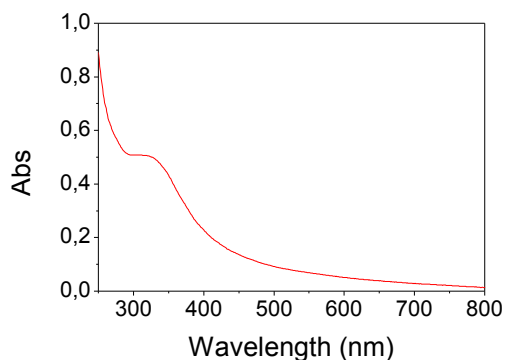
Solvent: Milli-Q Water

Nº cluster/mL: ~ 5.0×10^{15}

Molar Gold Concentration: ~ 0.13 mM

Fluorescence emission: 750 – 770 nm

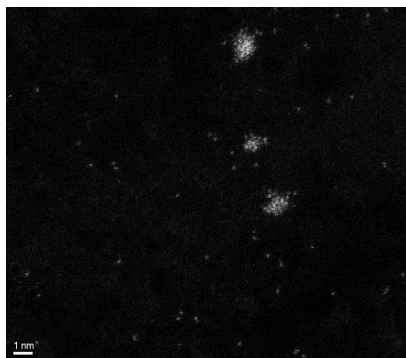
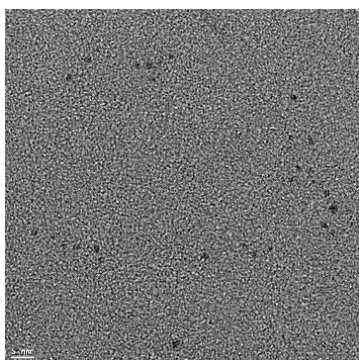
Optical absorption and fluorescence emission spectra



Measurement conditions of the fluorescence spectrum: Cary Eclipse Fluorescence Spectrophotometer; $\lambda_{excitation}$: 300 nm; gain: maximum; excitation and emission slits 10 nm; clusters in water.

Stability of gold clusters: The operational pH window where the functionalized clusters remain stable in solution preserving their fluorescence is at pH_s higher than the pK_a +1 ~7.5 of the terminal carboxylate groups. They are compatible with most commonly used buffers such as HEPES, 1xPBS, Sodium Phosphate, Tris-HCl.

UHRTEM images



Suggested Application(s)

- Bioconjugation
- Immunocytochemistry
- Microscopy probe
- Cellular uptake
- Immunogold
- Immunosensing
- Catalysis
- Optoelectronic

Ordering Information

Product Name	Nº clusters/mL	Quantity (nmol)	Quantity (mL)	Catalogue No.
NITgold carboxylated clusters 0.8nm	5,00E+15	8 nmol	1mL	51002415S
NITgold carboxylated clusters 0.8nm	5,00E+15	40 nmol	5mL	51002415W
NITgold carboxylated clusters 0.8nm	5,00E+15	200 nmol	25mL	51002417V

Product disclaimer

This nitparticles® product is to be used for research purposes only. Unless stated in the documentation of on an individual product label, catalog 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.nitparticles.com for the Material Safety Data Sheet of the product.

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