

NITgold Clusters–COOH 1.5nm

#5100025

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

Description

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. 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): (1.5 ± 0.3) nm

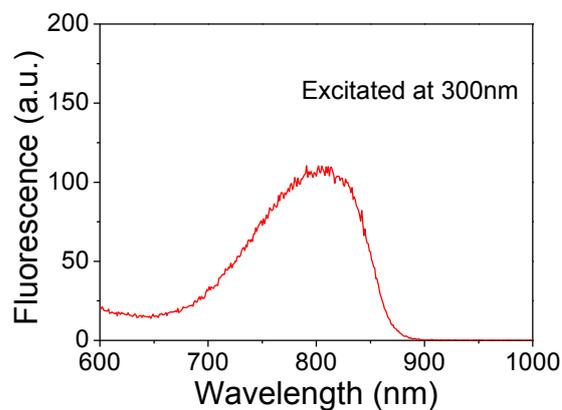
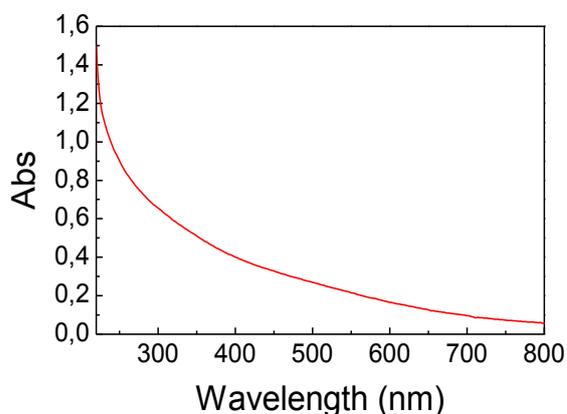
Solvent: Milli-Q Water

Nº cluster/mL : $\sim 1 \times 10^{15}$ clusters/mL

Molar Gold Concentration: ~ 0.17 mM

Fluorescence emission: ~ 800 nm

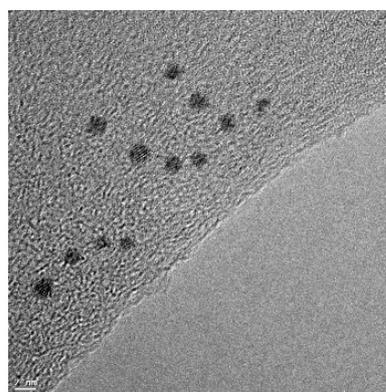
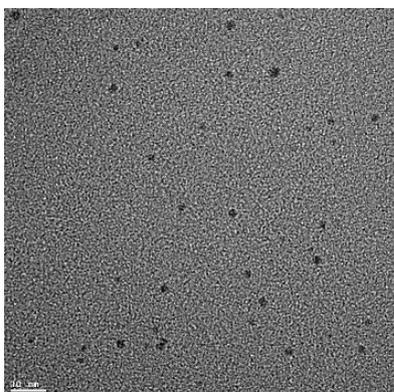
Optical absorption and fluorescence emission spectra



Measurement conditions of the fluorescence spectrum: Cary Eclipse Fluorescence Spectrophotometer; $\lambda_{\text{excitation}}$: 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 1.5nm	1,00E+15	1,6 nmol	1mL	51002515S
NITgold carboxylated clusters 1.5nm	1,00E+15	8 nmol	5mL	51002515W
NITgold carboxylated clusters 1.5nm	1,00E+15	40 nmol	25mL	51002517V

Product disclaimer

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