

NIT Silver-COOH-PEG 30 nm

#51010915Y & #510109161 & #51011015Y & #510110161

Description

30 nm-PEG-Silver Nanoparticles are uniform quasi-spherical nanoparticles functionalized with ligand shells of different monodentate poly(ethylene glycol)-thiol (PEG-SH) ligands (3000 or 5000 Da) having a carboxylic acid end group, which can be further used to immobilize covalently biomolecules by formation of stable amide bonds with primary amines using the carbodiimide coupling reaction with NHS (N-hydroxysuccinimide) and EDC (1-ethyl-3-(3-dimethylaminopropyl carbodiimide hydrochloride). Polyethylene glycol functionalized gold nanoparticles have a high stability in biological media such as phosphate-buffered saline solution (PBS).

Technical Specifications

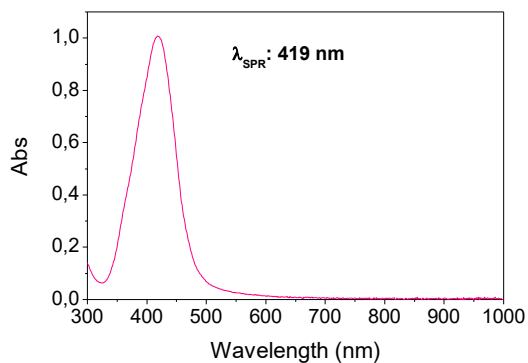
Particle Surface: PEG-COOH(3kDa-5kDa) capping	Peak SPR wavelength: 419 ± 1 nm
Hydrodynamic Diameter (DLS): 35 ± 2 nm	Z-Potential: -28.2 mV
Concentration: 0.02 mg/mL	Molar Concentration:¹ 0.22 nM
Particle Concentration: 1.35×10 ¹¹ particles/mL	O.D.: 7.1
Solvent: Milli-Q Water	pH of Solution: 5.0

¹ Determined according to a $\epsilon = 3.18 \times 10^{10} \text{ M}^{-1} \cdot \text{cm}^{-1}$. Werts et al. Analyst 2013,138, 583-592.

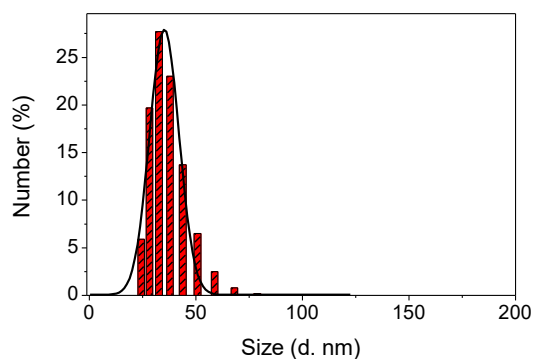
STORE AT 4°C away from light. DO NOT FREEZE



UV/visible absorbance spectrum



Size Distribution (DLS)



Suggested Application(s)

- Biological applications
- Bioanalytical applications of SERS spectroscopy

Ordering Information

Product name	N ^o Nanoparticles/mL	OD	ϵ (M ⁻¹ cm ⁻¹)	Quantity	Cat#
NITsilver COOH-PEG 5000Da 30nm	1,349E+11	7,1	3,18E+10	10 ml	51011015Y
NITsilver COOH-PEG 5000Da 30nm	1,349E+11	7,1	3,18E+10	20 ml	510110161
NITsilver COOH-PEG 3000Da 30nm	1,349E+11	7,1	3,18E+10	10 ml	51010915Y
NITsilver COOH-PEG 3000Da 30nm	1,349E+11	7,1	3,18E+10	20 ml	510109161

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.

