

**NIT Silver-COOH-PEG 35 nm**

**#51011115Y & #510111161 & #51011215Y & #510112161**

**Description**

35 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**

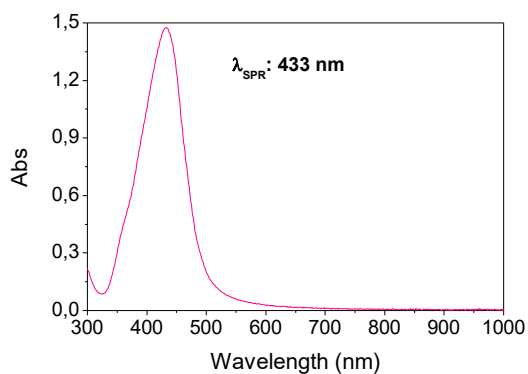
<b>Particle Surface:</b> PEG-COOH(3kDa-5kDa) capping	<b>Peak SPR wavelength:</b> 432 ± 1 nm
<b>Hydrodynamic Diameter (DLS):</b> 41 ± 2 nm	<b>Z-Potential:</b> -43.9 mV
<b>Concentration:</b> 0.02 mg/mL	<b>Molar Concentration:</b> <sup>1</sup> 0.14 nM
<b>Particle Concentration:</b> 8.49×10 <sup>10</sup> particles/mL	<b>O.D.:</b> 7.6
<b>Solvent:</b> Milli-Q Water	<b>pH of Solution:</b> 5.0

<sup>1</sup> Determined according to a  $\epsilon = 5.40 \times 10^{10} \text{ M}^{-1} \cdot \text{cm}^{-1}$ . Werts et al. Analyst 2013,138, 583-592.

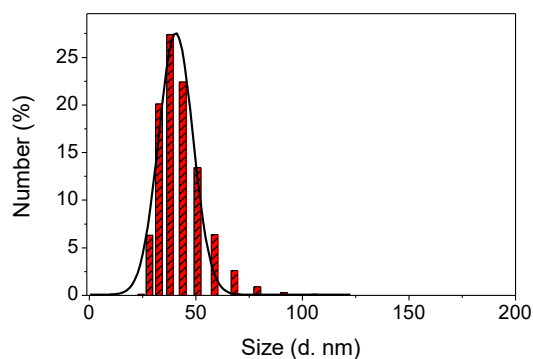
**STORE AT 4°C away from light. DO NOT FREEZE**



### UV/visible absorbance spectrum



### Size Distribution (DLS)



### Suggested Application(s)

- Biological applications
- Bioanalytical applications of SERS spectroscopy

### Ordering Information

Product name	N <sup>o</sup> Nanoparticles/mL	OD	$\epsilon$ (M <sup>-1</sup> cm <sup>-1</sup> )	Quantity	Cat#
NITsilver COOH-PEG 5000Da 35nm	8,49E+10	7,6	5,40E+10	10 ml	51011215Y
NITsilver COOH-PEG 5000Da 35nm	8,49E+10	7,6	5,40E+10	20 ml	510112161
NITsilver COOH-PEG 3000Da 35nm	8,49E+10	7,6	5,40E+10	10 ml	51011115Y
NITsilver COOH-PEG 3000Da 35nm	8,49E+10	7,6	5,40E+10	20 ml	510111161

### Product disclaimer

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