



# Solid and Functionalized Gold Nanoparticles

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**79-0235 Gold nanoparticles powder, 6nm, organic solvent-dispersible** [7440-57-5] 5mg  
25mg

Organic soluble solid

Surface ligand: dodecanethiol

Hydrodynamic size: ~8-10nm larger than their inorganic core size measured by TEM

**79-0238 Gold nanoparticles with amine surface functional group, 6nm, in water** [7440-57-5] 5mg  
25mg

Water-soluble gold nanoparticles with amphiphilic polymer and PEG coating.

Reactive group: amine

Zeta potential: from -10mV to 0mV

Total thickness of organic layers: ~6nm The organic layers consist of a monolayer of dodecanethiol, a monolayer of amphiphilic polymer and a monolayer of PEG

Hydrodynamic size: ~12-14 nm larger than their inorganic core size as measured by TEM

Stability: Very stable in buffer solutions in the pH range of 4-10 and can survive the autoclaving (121°C for 30 mins.) The long term stability is not as good as that of 79-0240.

Conjugating: 79-0238 can be conjugated to carbonyl or thiol-containing molecules. Check expiration date before conjugating.

**79-0240 Gold nanoparticles with carboxylic acid surface functional group, 6nm, in water** [7440-57-5] 10mg  
50mg

Water-soluble gold nanoparticles with amphiphilic polymer.

Reactive group: carboxylic acid

Zeta potential: from -30mV to -50mV

Total thickness of organic layers: ~4 nm The organic layers consist of a monolayer of dodecanethiol and a monolayer of amphiphilic polymer

Hydrodynamic size: ~ 8-10 nm larger than their inorganic core size as measured by TEM

Stability: Very stable in buffer solutions in the pH range of 4-10 and can survive the autoclaving (121°C for 30 min.)

Conjugating: 79-0240 can be conjugated to protein, peptide, and other amine-containing molecules

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