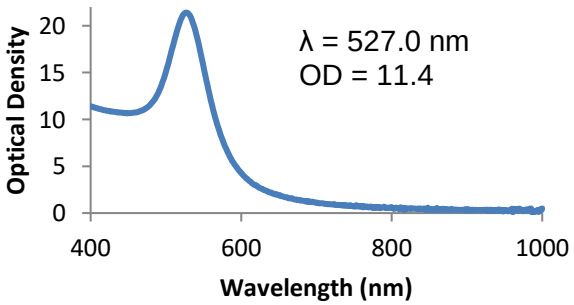
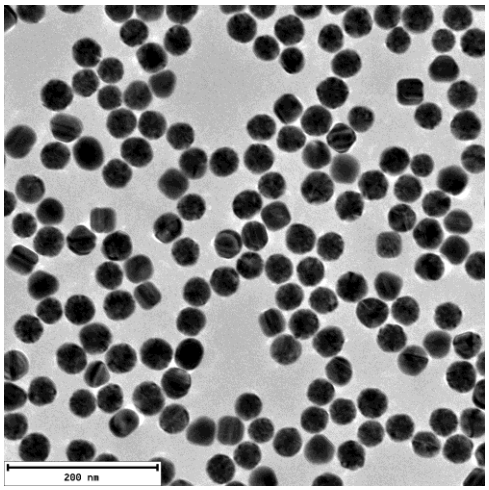
Streptavidin 40nM 10 OD Colloidal (1mL)
Catalog Number: AU2017-01

	Product Specs		Product Specs
Diameter:	40.0 ± 2.5 nm	**Mass Concentration (Au):**	750 – 840 µg/mL
Standard Deviation:	< ±4.0 nm	**Particle Concentration:**	0.9 – 1.6 x 10^{12} per mL
%CV*:	< 10%	**pH:**	6.0 – 8.0
SPR Peak:**	527.0 nm ± 3 nm	**Particle Surface:**	Covalently Attached Streptavidin
Optical Density:	10 – 12	**Zeta Potential:**	< 0 mV
Molarity:	1 – 3 nM	**Solvent:**	PBS with 0.01% Polysorbate-20

*** %CV = coefficient of variation (standard deviation ÷ diameter × 100)**
**** SPR = surface plasmon resonance**
***** PBS = 1x Phosphate Buffered Saline**

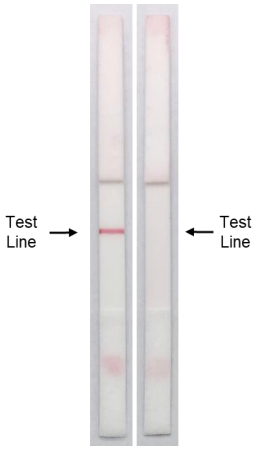
Extinction Spectrum





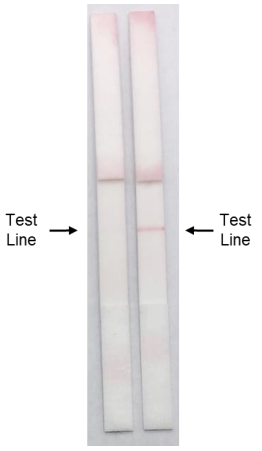
Streptavidin Affinity Test #1

- **Test line:** Streptavidin
- **Direct test:** left test strip was run using this Lot. Visible line indicates streptavidin affinity.
- **Competition test:** right test strip was run using this Lot which had been pre-incubated with streptavidin. No line indicates streptavidin affinity.



Streptavidin Affinity Test #2

- **Test line:** Mouse IgG
- **Left test strip** was run using this Lot pre-mixed with rabbit anti-mouse IgG antibody. No line line indicates streptavidin affinity.
- **Right test strip** was run using this Lot pre-mixed with biotinylated rabbit anti-mouse IgG antibody. Visible line indicates streptavidin affinity.



Suggested Storage and Handling Procedures

Store at 2-8 °C away from light. Storage at low temperature increases shelf life and stability of the nanoparticles, preventing changes in shape and/or size.

DO NOT FREEZE. Freezing will induce irreversible aggregation of particles and destroy the product.

Bring to room temperature and shake well before each use. Particles may settle to the bottom over time. Shake vigorously for 30 seconds to ensure particles are fully dispersed before use. Visually inspect to ensure all product has redispersed. If particulates or plating remain, sonicate for 1 minute, shake, and repeat as necessary. To minimize heating, do not sonicate for periods longer than 1 minute.

Dilution. We suggest diluting the particles with 2 mM sodium citrate for optimal stability.

Quality Control. If there are visible particulates or a change in the color or intensity of the dispersion, the nanoparticles may have aggregated. Filter the solution using a $\leq$ 0.45 µm polyvinylidene fluoride filter and save the filtered product. Check quality with spectrophotometry and electron microscopy.