



High Efficiency CdSe/ZnS Quantum Dots covalently conjugated to Streptavidin

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Lot # 202308512
 Product # AU2043
 Retest Date: January 8, 2025

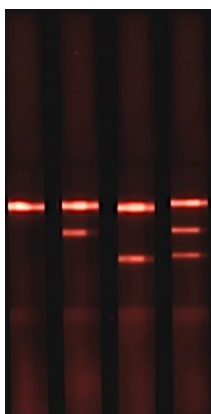
Emission Peak:	655 +/- 10nm
Concentration:	1uM
Particle size:	9-11nm
Absorption Peak:	440-650nm
Quantum Yield:	>50%
Storage:	2-8 °C In Dark
Solvent:	50mM Borate buffer pH 8.3 0.05% sodium azide
Volume:	Order amount dependent

Streptavidin Affinity Test #1

- **Control line:** Bio 602
- **Test line 1:** Anti FITC
- **Test line 2:** Anti DIG

• **Direct test:** left test strip was run using this Lot. Visible line indicates streptavidin affinity to bio 602.

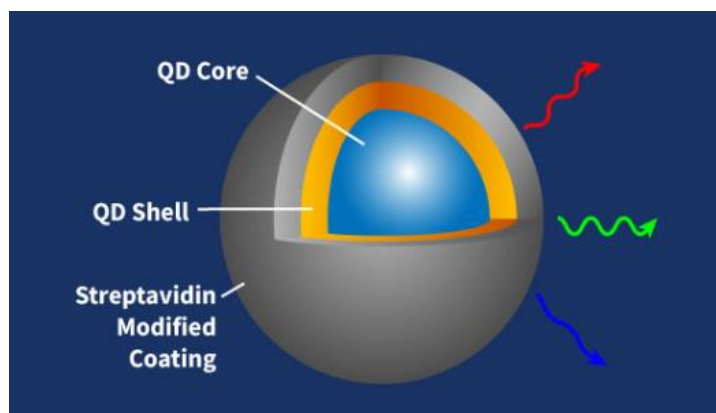
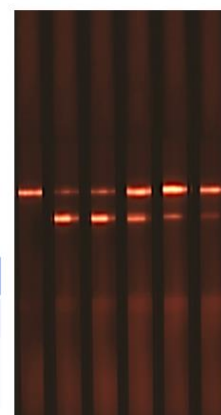
• **Competition test:** right test strips were run using this Lot. The competition indicates specific and bright binding to multiple test lines.



Streptavidin Affinity Test #2

- **Control line:** Biotin 602
- **Test line:** Anti FITC
- Using 0.25ul of our 1um quantum dots sensitivity of 1um Anti FITC was detected below 0.03ul

Well	1	2	3	4	5	6
Qdot	.25ul	.25ul	.25ul	.25ul	.25ul	.25ul
Positive (1uM)	N/A	.25ul	.125ul	.0625ul	.03ul	.015ul



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. To make 2 mM sodium citrate, dissolve 5.88 g of sodium citrate dihydrate in 10 L of high purity water (we suggest using DIUF).

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 $\leq 0.45 \mu\text{m}$ polyvinylidene fluoride filter and save the filtered product. Check quality with spectrophotometry and electron microscopy.