

PRODUCT DATA SHEET

Cadmium Selenide/Zinc Sulfide Quantum Dots 450nm - Alkyl, Carboxyl & Amine

Catalog Numbers:

Alkyl QD-450-A-5MG (5 mg, 10 nmol)
QD-450-A-10MG (10 mg, 10 nmol)
QD-450-A-25MG (25 mg, 25 nmol)

Carboxyl QD-450-C-1MG (1 mg, 2 nmol)
QD-450-C-5MG (5 mg, 10 nmol)
QD-450-C-10MG (10 mg, 20 nmol)
QD-450-C-25MG (25 mg, 50 nmol)

Amine QD-450-N-1MG (1 mg, 2 nmol)
QD-450-N-5MG (5 mg, 10 nmol)
QD-450-N-10MG (10 mg, 20 nmol)
QD-450-N-25MG (25 mg, 50 nmol)

Description

The vial(s) contain toluene dissolved CdSe/ZnS core/shell fluorescent nanocrystals at a concentration of 5 mg/ml (1nmol/mg).

- Proprietary surface passivation and ligand technology isolates the core from oxygen and harmful ions that can degrade quantum dot performance over time.
- Photostable (no bleaching)
- Narrow and sharp emission peaks
- Comparable quantum efficiencies (>40%) throughout the visible spectrum

Characteristics

Diameter: 7-8nm

Concentration: 5mg/ml (5nmol/ml)

Emission (λ max): 440-460nm

Full width at half maximum (FWHM): 20-22nm

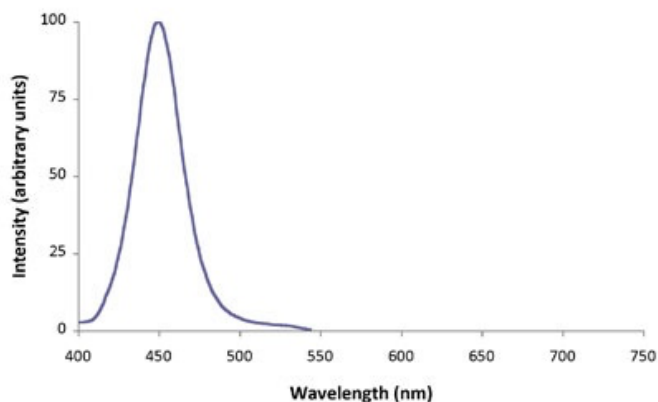
Supplied in toluene (Alkyl)

Supplied in deionized water (Carboxyl, Amine)

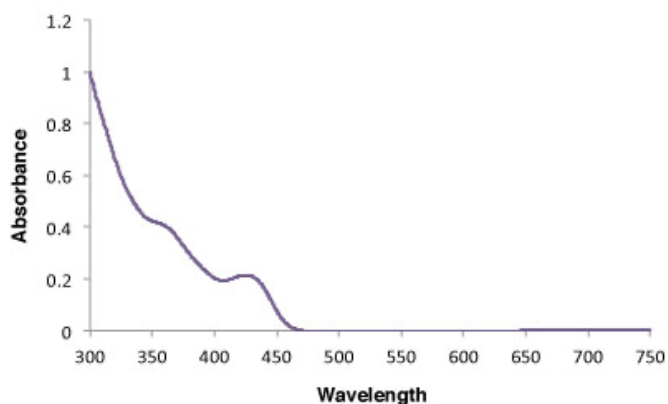
Storage

This product should be stored at 4°C in the dark. If stored as specified, Cytodiagnosics Quantum Dots have a shelf life of approximately one year. **DO NOT FREEZE.**

Emission Spectra



Excitation Spectra



Precipitation of Quantum Dots, Alkyl (Solvent Exchange & Concentration)

If required, solvent exchange or concentration of the quantum dots can be performed by either evaporation or by precipitation followed by resuspension in a suitable solvent (e.g. chloroform). Described below is a basic protocol for precipitation of 500 μ l of quantum dots.

Procedure

1. Transfer 500 μ l of quantum dots stock solution into a new vial.
2. Add 500 μ l of methanol and mix well.

Note: A final concentration of 50% or more of methanol is needed for efficient precipitation).

3. Incubate for 10 minutes at room temperature to allow the quantum dots to precipitate.
4. Centrifuge for 10 minutes at 10,000 x *g*.
5. Remove and discard supernatant.
6. Resuspended pellet to a desired concentration in a suitable solvent for your particular application.

Product Safety and Handling

This product is for R&D use only, not for drug, household, or other uses. Please review the safety datasheet (SDS) available online for proper safety and handling procedures

Ordering Information

For ordering call 866-344-3954 or visit us online.