

# **PRODUCT DATA SHEET**

## Cadmium Selenide/Zinc Sulfide Quantum Dots 630nm - Alkyl



**Oleic Acid Stabilized** 

#### **Catalog Numbers:**

QD-630-A-5MG (5 mg, 5 nmol) QD-630-A-10MG (10 mg, 10 nmol) QD-630-A-25MG (25 mg, 25 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: 10-11nm Concentration: 5mg/ml (5nmol/ml) Emission (λ max): 610-630nm Full width at half maximum (FWHM): 23-28nm Supplied in toluene

### Storage

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

#### **Emission Spectra**



#### **Excitation Spectra**





# Precipitation of Quantum Dots (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  $\mu$ l of quantum dots.

#### Procedure

- 1. Transfer 500  $\mu l$  of quantum dots stock solution into a new vial.
- 2. Add 500  $\mu$ 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.