

## PRODUCT DATA SHEET

### Cadmium Selenide/Zinc Sulfide Quantum Dots 575nm - Alkyl



Oleic Acid Stabilized

#### Catalog Numbers:

QD-575-A-5MG (5 mg, 5 nmol)  
QD-575-A-10MG (10 mg, 10 nmol)  
QD-575-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:** 9-10nm

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

**Emission ( $\lambda$  max):** 570-590nm

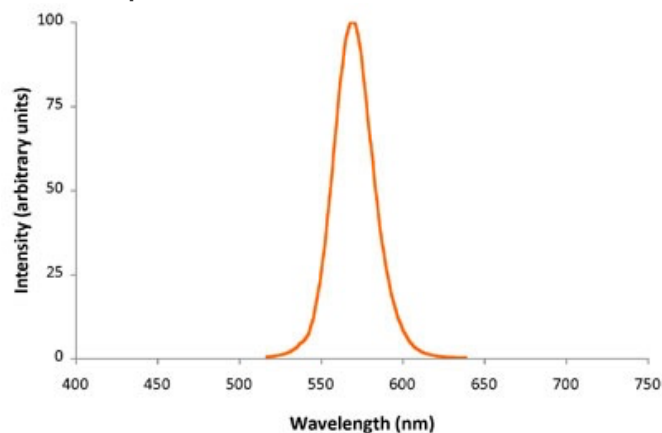
**Full width at half maximum (FWHM):** 23-28nm

**Supplied in toluene**

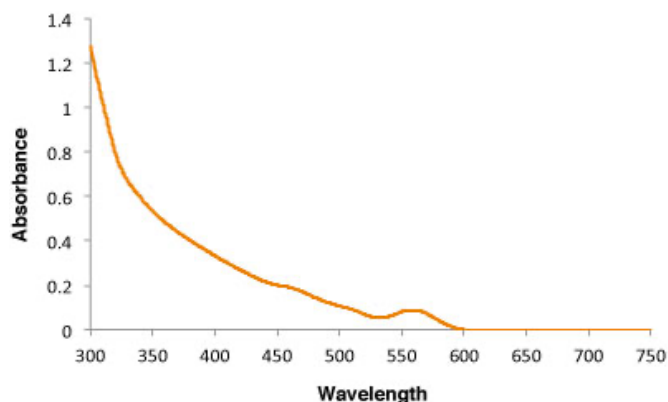
#### Storage

This product should be stored at 4°C in the dark. If stored as specified, Cytodiagnosics 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 µl of quantum dots.

### *Procedure*

1. Transfer 500 µl of quantum dots stock solution into a new vial.
2. Add 500 µl 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.