



## ZnSe/ZnS Quantum Dots in Water PRODUCT DATA SHEET

### ZnSe/ZnS Quantum Dots in Water

#### Description

ZnSe/ZnS Quantum Dots in Water is a fluorescent nanomaterial with a core/shell structure, consisting of ZnSe as the core and ZnS shell as the outer layer. The surface is modified with hydrophilic ligands, endowing it with excellent water solubility and good biocompatibility. The particle size of this material is uniform, capable of absorbing light over a wide wavelength range, and its emission spectrum exhibits narrow and symmetrical characteristics, providing high light intensity and stable fluorescence output. These characteristics make ZnSe/ZnS Quantum Dots in Water perform well in many applications, especially in fields such as biological imaging, fluorescence detection, sensors, and optoelectronic devices. The presence of ZnS shell effectively protects the ZnSe core, significantly improving the photostability and thermal stability of quantum dots, enabling them to maintain high fluorescence efficiency and stability under different environmental conditions. The surface of ZnSe/ZnS Quantum Dots can be functionalized to introduce various biomolecules or chemical groups, thereby enabling them to play a greater role in specific biological detection and sensing fields. Due to its unique optical properties and superior biocompatibility, ZnSe/ZnS Quantum Dots in Water not only provides an important tool for fluorescence imaging technology, but also brings new solutions for research and applications in fields such as disease diagnosis, drug delivery, and environmental monitoring.

Abvigen Inc can provide high-quality ZnSe/ZnS Quantum Dots in Water with multiple emission wavelengths can be provided. The product has uniform particle size and stable fluorescence performance. It can meet the personalized material needs of various customers for research and development, testing, production, and consumption.

For custom sizes, formulations or bulk quantities please contact our customer service department.

**Website:** [www.abvigen.com](http://www.abvigen.com) **Phone:** +1 929-202-3014 **Email:** [info@abvigenus.com](mailto:info@abvigenus.com)

#### Characteristics

Composition: ZnSe/ZnS Quantum Dots in Water

Emission: 380 nm - 460 nm



Surface: 3-MPA / PEG-NH<sub>2</sub> / PEG-COOH

Buffer: DI Water

Size: 5 mg

Storage: Stored at 2 - 8°C. Do not freeze. Protect from light.

### **Storage**

This product should be stored at 4°C. **DO NOT FREEZE.**

### **Advantage**

Wide absorption spectrum

Excellent photostability

Uniform particle size

Excellent water solubility

Uniform particle size

Narrow and symmetrical emission spectra

### **Applications**

Biosensors

Biological imaging

Optical Marking and Diagnosis

Environmental monitoring

### **Ordering Information**

Website: [www.abvigen.com](http://www.abvigen.com)

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