



## **Orange Fluorescent SiO<sub>2</sub> Magnetic Particles with Oleic Acid**

### **PRODUCT DATA SHEET**

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### **Description**

Fluorescent SiO<sub>2</sub> Magnetic Particles with Oleic Acid is a nanomaterial that combines magnetic and fluorescent properties. Its structure consists of a silicon dioxide shell and a magnetic material core, with a surface doped with fluorescent dyes and surface modified with oleic acid. Fluorescent dyes have specific excitation and emission wavelengths, which can be detected under equipment such as fluorescence microscopes or flow cytometers. The fluorescent substance in fluorescent SiO<sub>2</sub> magnetic powder has good photostability and can maintain fluorescence intensity for a long time. Oleic acid surfactants can significantly reduce the surface tension of liquids, making them easier to spread and wet on solid surfaces. By modifying Fluorescent SiO<sub>2</sub> Magnetic Particles through physical adsorption or chemical bonding, the stability and dispersibility of the material can be improved, effectively preventing agglomeration. Fluorescent SiO<sub>2</sub> Magnetic Particles with Oleic Acid are widely used in fields such as biological imaging, sensing, diagnosis, and drug delivery.

Abvigen Inc can provide high-quality Orange Fluorescent SiO<sub>2</sub> Magnetic Particles with Oleic Acid of various particle sizes. This product has uniform particle size and stable fluorescence intensity. It can meet the personalized material needs of various customers in 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

Concentration: 10 mg/ml

Size: 10 ml

Surface: Oleic acid

Shape: Spherical

Composition: Fluorescent SiO<sub>2</sub> Magnetic Particles

Standard deviation: CV<5%

Excitation: 380 nm

Emission: 610 nm

Buffer: Ethanol

Form: Suspension

Store: Storage at 2 - 8 °C

### Storage

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

### For 10 mg/ml of Orange Fluorescent SiO<sub>2</sub> Magnetic Particles with Oleic Acid

Diameter	Conc. mg/ml	Particles/mg	Particles/ml	Diameter	Conc. mg/ml	Particles/mg	Particles/ml
50 nm	10	6.11E+12	6.11E+13	5 um	10	6.11E+06	6.11E+07
100 nm	10	7.64E+11	7.64E+12	6 um	10	3.54E+06	3.54E+07
150 nm	10	2.26E+11	2.26E+12	7 um	10	2.23E+06	2.23E+07
200 nm	10	9.55E+10	9.55E+11	8 um	10	1.49E+06	1.49E+07
300 nm	10	2.83E+10	2.83E+11	9 um	10	1.05E+06	1.05E+07
400 nm	10	1.19E+10	1.19E+11	10 um	10	7.64E+05	7.64E+06
500 nm	10	6.11E+09	6.11E+10	20 um	10	9.55E+04	9.55E+05
600 nm	10	3.54E+09	3.54E+10	30 um	10	2.83E+04	2.83E+05
700 nm	10	2.23E+09	2.23E+10	40 um	10	1.19E+04	1.19E+05
800 nm	10	1.49E+09	1.49E+10	50 um	10	6.11E+03	6.11E+04
900 nm	10	1.05E+09	1.05E+10	60 um	10	3.54E+03	3.54E+04
1 um	10	7.64E+08	7.64E+09	70 um	10	2.23E+03	2.23E+04
2 um	10	9.55E+07	9.55E+08	80 um	10	1.49E+03	1.49E+04



3 um	10	2.83E+07	2.83E+08	90 um	10	1.05E+03	1.05E+04
4 um	10	1.19E+07	1.19E+08	100 um	10	7.64E+02	7.64E+03

### **Advantage**

Superparamagnetism

Uniform particle size

Good fluorescence stability

Good biocompatibility

Chemical stability

Surface modifiable

Good dispersibility

### **Applications**

Biological fluorescence imaging

Flow cytometry

Biosensors

Cell separation

Immunoassay

Environmental monitoring

Biological fluorescence labeling

Targeted therapy

### **Ordering Information**

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