

# Red Nanoflower Structure Fluorescent Magnetic Nanoparticles-NH2 PRODUCT DATA SHEET

# **Red Nanoflower Structure Fluorescent Magnetic Nanoparticles-NH2**

### Description

Red Nanoflower Structure Fluorescent Magnetic Nanoparticles are a multifunctional nanomaterial that combines magnetic response and fluorescence tracing. The material consists of a cross-linked dextran matrix and magnetic hematite nanoclusters forming a unique "nanoflower" morphology, with amino groups on the surface, which can be used for covalent binding with proteins, antibodies, or other molecules. Red Nanoflower Structure Fluorescent Magnetic Nanoparticles-NH2 are excited at a wavelength of 552 nm and emit at 580 nm. This material exhibits specific interactions with alternating magnetic fields in terms of magnetic properties, and cannot be separated by conventional permanent magnets. However, it can achieve precise manipulation in high gradient magnetic fields and is an ideal tracer for magnetic particle imaging (MPI). The surface is functionalized with amino groups, endowing it with excellent biocompatibility and covalent coupling ability, making it convenient for connecting targeted molecules such as antibodies and proteins. These characteristics give it unique advantages in biomedical fields such as precise drug delivery, dynamic tracking of living cells, and targeted diagnosis and treatment of tumors.

Abvigen Inc can provide high quality Red Nanoflower Structure Fluorescent Magnetic Nanoparticles-NH2 with various particle sizes. The product has uniform particle size and good magnetic stability. 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: <u>www.abvigen.com</u> Phone: +1 929-202-3014 Email: <u>info@abvigenus.com</u>

#### Characteristics

Concentration: 5 mg/ml Size: 5 ml Surface: Amino Diameter: 50 nm / 70 nm Polydispersity index: < 0.200



Composition: Cross-linked starch iron oxide composite particles

Shape: Cluster-typed Density: 2.5 g/ccm Excitation: 552 nm Emission: 580 nm Buffer: Suspension in PBS Expiration date: 6 months

Store: Storage at 2 - 8 °C

#### Storage

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

### For 5 mg/ml of Red Nanoflower Structure Fluorescent Magnetic Nanoparticles-NH2

Diameter	Conc. mg/ml	Particles/mg	Particles/ml
50 nm	5	6.1E+12	3.1E+13
70 nm	5	2.2E+12	1.1E+13

#### Advantage

Uniform particle size Stable fluorescence intensity

Good magnetic stability

Good biocompatibility

High sensitivity

High specific surface area

Superparamagnetism

## Applications

Cell labeling and tracking

Molecular probe

**Biological imaging** 

Drug delivery

# **Ordering Information**



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