Epoxy Iron Oxide Nanoparticles
PRODUCT DATA SHEET

Epoxy Iron Oxide Nanoparticles

Description

Epoxy Iron Oxide Nanoparticles have a wide range of applications, and this material exhibits superparamagnetism, which means it can exhibit magnetism under external magnetic fields, making it easy to separate and manipulate. Epoxy group, as a functional group, has high reactivity and can react with specific biomolecules or chemicals to achieve targeted modification and functionalization. This characteristic makes Epoxy Iron Oxide nanoparticles have important application value in biomedical, materials science and other fields.

In the biomedical field, Epoxy Iron Oxide nanoparticles can be used for drug delivery, cell separation, and purification. Its surface can be selectively modified with specific biomolecules, and these microspheres can serve as drug carriers to achieve targeted drug release and improve drug efficacy. In the field of materials science, Epoxy Iron Oxide nanoparticles can be used to prepare composite materials. By combining with other materials, the mechanical properties and thermal stability of the materials can be improved, expanding their application range. This material can also be used for catalytic reactions, synthesis of nanoparticles, etc. Due to their small size and high surface activity, these microspheres can serve as nanoscale reaction sites, improving reaction efficiency and product purity.

Abvigen Inc can provide high-quality Epoxy Iron Oxide Nanoparticles (10 nm - 600 nm) with uniform particle size and good chemical stability, which can meet various personalized material needs such as customer research and development, testing, and production consumption.

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

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Characteristics

Diameter: 10 nm - 600 nm

Size: 2 ml; 10 ml

Concentration: 5 mg/ml

Composition: Iron Oxide Nanoparticles

Surface: Epoxy

Shape: Spherical

Buffer: PBS

Density: 5.18 g/ccm

Standard deviation: CV<5%

Store: Storage at 2 - 8 °C

Storage

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

For 5 mg/ml of Epoxy Iron Oxide Nanoparticles

Diameter	Conc. mg/ml	Particles/mg	Particles/ml	Diameter	Conc. mg/ml	Particles/mg	Particles/ml
10 nm	5	3.69E+14	1.84E+15	200 nm	5	4.61E+10	2.30E+11
15 nm	5	1.09E+14	5.46E+14	300 nm	5	1.37E+10	6.83E+10
20 nm	5	4.61E+13	2.30E+14	400 nm	5	5.76E+09	2.88E+10
25 nm	5	1.09E+14	5.46E+14	500 nm	5	2.95E+09	1.47E+10
30 nm	5	1.37E+13	6.83E+13	600 nm	5	1.71E+09	8.53E+09
100 nm	5	3.69E+11	1.84E+12				

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Advantages

Higher specific surface area

Uniform particle size

Good magnetism

Good biocompatibility

Strong chemical stability

Applications

Materials and Chemical Engineering

Catalyst or catalyst support

Electrode material

Drug delivery and bioimaging

Water treatment and air purification

Magnetic resonance imaging

Responsive materials

Biosensors

Ordering Information

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