Chemiluminescent Magnetic Particles-COOH
PRODUCT DATA SHEET

Chemiluminescent Magnetic Particles-COOH

Description

This series of chemiluminescence magnetic microspheres have super paramagnetism, moderate magnetic content, excellent resuspendability, fast magnetic response time, large specific surface area and good hydrophilicity. Good microsphere surface treatment technology provides customers with a variety of functional groups as options for the development of different technical routes. Sufficient functional groups ensure that the finished products can bind enough specific proteins or biomolecules. The product has sufficient carboxyl functional groups on the surface, which can effectively conjugate enough target biomolecules, and can meet the requirements chemiluminescence immunoassay with high sensitivity. In addition, we can provide customers with complete technical support and overall application solutions for subsequent applications.

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

Website: www.abvigen.com Phone: +1 929-202-3014 Email: info@abvigenus.com

Characteristics

Composition: Fe_3O_4

Concentration: 25 mg/ml

Particle size: 600 nm~5 μm

Surface: COOH

Additive: Trace amount of surfactant

Uniformity: CV < 5%

Density: 1.05-3.38 g/cm³

Preservative solution: Deionized water, 0.01% (w/v) preservatives

Storage condition: Store at 2 - 25°C, do not freeze

Quality guarantee period: 36 months

1378 US-206 Ste 6-126, Skillman, NJ USA Email: info@abvigenus.com
Tel: 1-816-388- 0112 Fax: 1- 888-616-0161

Protocol (taking the coupling of 10mg magnetic microspheres as an example)

1. Buffer preparation

1.1 Activation buffer: MES-4.265 g/L, NaCl-28 g/L, NaOH-0.7 g/L, pH 4.0;

1.2 Activation solution: EDC (60 mg/mL), NHS (60 mg/mL) (prepared with activation buffer, ready to use);

1.3 Coupling buffer: 20 mM PBS, pH 7.0-7.5 (adjustable according to different assays);

1.4 Blocking buffer: Tris-6.6 g/L, ethanolamine 3 mL/L, BSA 10 g/L, PC300-1 mL/L, pH 7.4;

1.5 Storage buffer: Tris-6.6 g/L, BSA-0.5 g/L, Tween 20-0.5 mL/L, PC300-1 mL/L, pH 7.4.

2. Coupling process

2.1 Take out the required materials and reagents, and balance them to room temperature;

2.2 Pipette 400 µL of magnetic microsphere (solid content 2.5%) into the EP tube, and remove the supernatant by magnetic separation;

2.3 Add 2 mL of activation buffer, vortex and mix for 10 s, remove the supernatant by magnetic separation, and repeat this step twice;

2.4 Add 900 µL activation buffer, vortex and mix for 10 s, add 50 µL EDC and 50 µL NHS, and place them in a constant temperature shaker at 37°C to activate for 0.5 hr;

2.5 After activation, remove the supernatant by magnetic separation;

2.6 Add 2 mL coupling buffer, vortex and mix for 10 s, remove the supernatant by magnetic separation, and repeat this step twice;

2.7 Add 2 mL coupling buffer, vortex and mix for 10 s;

2.8 Add appropriate coupling buffer and mix well, then add 200 µg antibody to make the coupling concentration of magnetic beads 10 mg/mL, and put them in a constant temperature shaker at 37°C for reaction for 2 hr;

2.9 After coupling, remove the supernatant by magnetic separation;

2.10 Add 2 mL blocking buffer, vortex and mix for 10 s, and then block in the constant temperature shaker at 37°C for 0.5 hr;

2.11 After blocking, remove the supernatant from magnetic separation;

2.12 Add 2 mL storage buffer, vortex and mix evenly for 10 s, remove the supernatant by magnetic separation, and repeat this step for 3 times;

2.13 Add 1mL storage buffer, suspend it to 10 mg/mL, and store it at 2-8°C.

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Advantages

High magnetic content: fast magnetic response

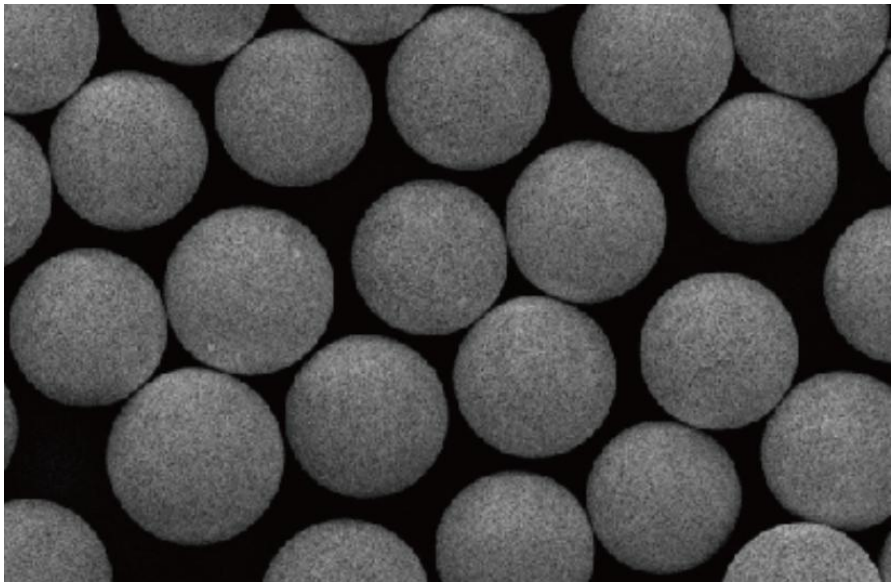
Large scale production capacity, up to 50L/batch: scalable and stable production

Uniform diameter, stable and controllable surface functional groups: high reproducibility

Superparamagnetism and proper density: ensures good resuspension and suspension time

Sufficient surface functional groups: efficiently couple with sufficient amount of target protein

Electron microscope image of Chemiluminescent Magnetic Particles-COOH



Principle of chemiluminescence

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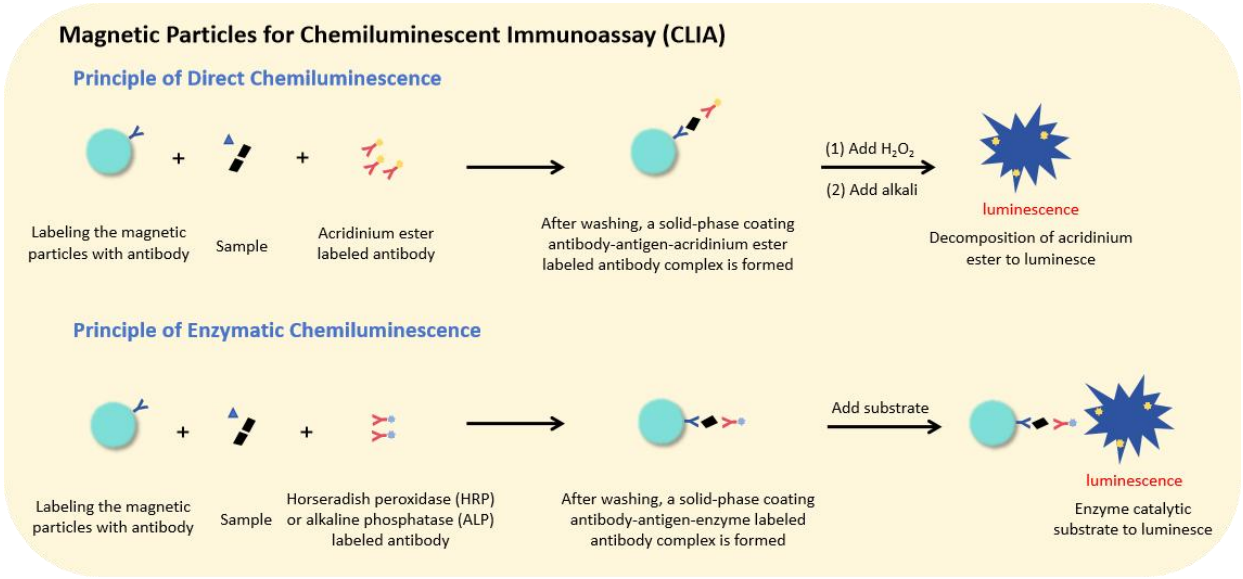

Storage and Stability

This product should be stored at 2 - 25°C. **DO NOT FREEZE**. 3 years.

Limited Product Warranty

1. In order to reduce the loss of magnetic beads, the time of each magnetic separation should be no less than 1 min.

2. Before removing the beads from the tube, the magnetic beads should be fully mixed and resuspended evenly, and bubbles should be avoided during operation.

3. It is recommended to use a good quality pipette tip and reaction tube to avoid losses caused by adhesion.

4. This product is for research use only.

5. All information above is provided for guidance and reference purposes only.

Ordering Information

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