Polyvinylpyrrolidone-modified Prussian Blue Nanoparticles, < 100 nm

Cat No: ABPPBN-100

Description

Accurate diagnosis and efficient treatment of tumors have always been a difficult problem and research hotspot in the medical field. The design and preparation of nano diagnostic agents with diagnosis, monitoring and treatment functions as one and good biosafety are the material basis for realizing accurate treatment of tumors. Prussian blue, an ancient dye, is approved by the U.S. Food and Drug Administration as a clinical antidote for thallium and other radioactive element poisoning. Prussian blue nanoparticles have stable chemical structure and excellent physical, chemical, optical and magnetic properties. Because of its excellent photothermal conversion performance, this material has attracted great attention in drug delivery, tumor photoacoustic imaging and photothermal therapy in recent years.

Abvigen can provide high quality polyethylpyrrolidone modified Prussia blue nanoparticles with low toxicity, safety, environmental protection, no pollution, dispersibility, stability and other characteristics, which can be used for anti-inflammatory, antioxidant, tumor photothermal therapy, nuclear magnetic resonance imaging, thallium antidotes, etc. The product has high repeatability between batches, which can meet the needs of different personalized materials such as research and development, testing and production of various customers.

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

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Email: info@abvigenus.com
Tel: 1-816-388- 0112 Fax: 1- 888-616-0161

Characteristics

Type: Prussian Blue Nanoparticles

Surface: Polyvinylpyrrolidone (PVP)

Particle size: < 100 nm

Concentration: 0.25 mg/mL

Size: 10 mL

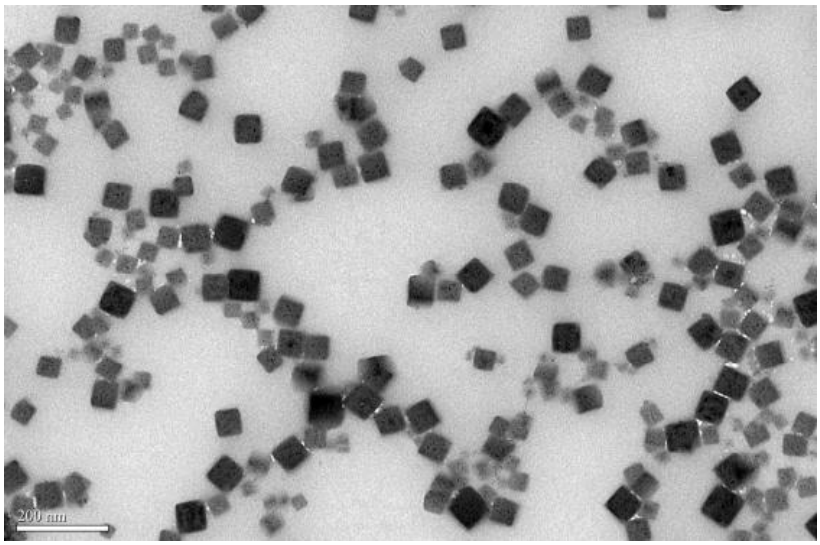
Solvent: Ultrapure water

Storage condition: Sealed storage at 4°C

Shelf life: 12 months

Package: Glass bottle

TEM of Polyvinylpyrrolidone modified Prussian Blue Nanoparticles



Use Effect

The results of antioxidant experiments verified that PBNPs could protect cells from free radical damage caused by ultraviolet (UVA), diallyl trisulfide (DATS), lipopolysaccharide (LPS), phorboester (PMA), high sugar and other culture environments, and could also protect neurohippocampal cells from damage during OGD reoxygenation. It is suggested that PBNPs is a potential protective agent for brain ischemia-reperfusion injury. An animal hepatitis model established with LPS demonstrated that PBNPs accumulates in the liver and spleen in mice and can effectively protect the liver from LPS-induced liver inflammation.

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Advantages

Low toxicity

Safety, environmental protection and pollution-free

Good dispersion

Good stability

Good photothermal conversion performance

Applications

Drug delivery

Tumor photoacoustic imaging

Photothermal therapy

Anti-inflammatory

Antioxidant

Nuclear magnetic resonance imaging

Thallium antidote

Storage

Sealed, stored in a refrigerator at 4°C for 12 months.

Note

Polyvinylpyrrolidone modified Prussian Blue Nanoparticles should avoid freezing and thawing during use and preservation.

Ordering Information

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