

# Hafnium oxid Nanoparticles, 50 nm

## Cat No: ABHN-50

#### Description

Hafnium dioxide nanoparticles possess uniform size, good hydrophilicity as well as non biodegradability, and not dissolved or swelling by common solvents, can be directly centrifuged for enrichment, which conducive to application and recovery. For surface modified substances such as polyacrylic acid, it has good bonding ability, usually using efficient microwave assisted hydrothermal synthesis method, which has high particle yield, good controllability of size and strong surface reactivity. Hafnium dioxide nanoparticles have strong X-ray attenuation and dose deposition capabilities, and are often used as CT contrast agents and radiation therapy sensitizers. In addition, hafnium dioxide nanoparticles also have the ability to remove a variety of reactive oxygen species, which can be used to relieve cellular oxidative stress and other applications.

Abvigen can provide high quality hafnium dioxide nanoparticles. 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: <u>www.abvigen.com</u> Phone: +1 929-202-3014 Email: <u>info@abvigenus.com</u>

## Characteristics

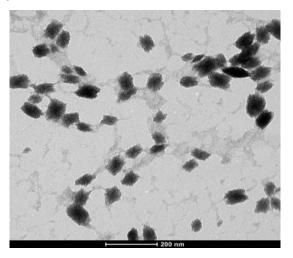
Type: Hafnium Oxid Nanoparticles Component: Hafnium Oxid Nanoparticles, ultrapure water Character: Milky white liquid with opalescence TEM size: 50 nm Hydrodynamic dimensions (hafnium dioxide core+surface hydration layer diameter): Approx. 55 nm Zeta potential: +30 mV Hafnium content: About 4 mg/mL Size: 2.5 mL Storage condition: Sealed storage at 4°C

1378 US-206 Ste 6-126, Skillman, NJ USA Tel: 1-816-388- 0112 Fax: 1-888-616-0161



Shelf life: 12 months Package: Glass bottle

# **TEM of Hafnium Oxid Nanoparticles**



## Advantages

Hydrothermal synthesis, no organic solvents involved, safe, environmentally friendly and pollutionfree

The microwave assisted synthesis method has the advantages of high efficiency, good monodispersity and good stability

## Applications

CT contrast agent

Radiation therapy sensitizer

Relieve cellular oxidative stress

## Storage

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

## **Ordering Information**

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Phone: +1 929-202-3014

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