



## Gold Nanobipyramids-11MDA PRODUCT DATA SHEET

### Gold Nanobipyramids-11MDA

#### Description

Gold Nanobipyramids modified with 11 Mercaptoundecanoic acid (11MDA) have demonstrated significant advantages in biomedical, catalytic, and sensor applications. Its unique biconical shape enhances the local surface plasmon resonance effect of Gold Nanobipyramids, resulting in stronger electric field enhancement and higher refractive index sensitivity. Gold Nanobipyramids-11MDA has multiple functional groups on its surface, which can enhance its binding affinity and selectivity with target molecules, thereby enhancing its application in biomarker detection, such as tumor markers, viruses, bacteria, and metal ion detection. Visual detection of aluminum ions in water can be achieved using Gold Nanobipyramids-11MDA. The -COOH functional group in MUA undergoes strong chelation with  $Al^{3+}$ , causing a red shift or broadening of the surface plasmon absorption band of gold nanoparticles, and the solution color changes from wine red to purple. The reaction has high selectivity and sensitivity. In addition, Nanobipyramids-11MDA has also been used to prepare mercury ion sensing chips, which can achieve rapid detection of trace mercury ions in the environment. Gold Nanobipyramids-11MDA also exhibits excellent performance in catalytic reactions, especially in organic reactions, oxidation reactions, and energy conversion processes. Due to its high specific surface area and abundant surface active sites, it can serve as an efficient catalyst carrier.

Abvigen Inc is able to provide high quality Gold Nanobipyramids-11MDA. This product is available in a wide range of capping agents. Each batch has good monodispersity, uniform size, and can meet the needs of various customers in research and development, testing, production, and consumption.

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

**Website:** [www.abvigen.com](http://www.abvigen.com) **Phone:** +1 929-202-3014 **Email:** [info@abvigenus.com](mailto:info@abvigenus.com)

**Characteristics**

Size: 2.5 mg or others

Surface: 11-Mercaptoundecanoic acid

SPR: 700 nm - 980 nm

Shape: Bipyramid

Composition: Gold Nanobipyramids

Density: 19.32 g/ccm

Store: Storage at 2 - 8 °C

**Storage**

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

**Advantage**

Good biocompatibility

Good chemical stability

Good catalytic performance

Uniform particle size

Better electric field enhancement effect

**Applications**

Biomarkers

Biological imaging

Surface enhanced Raman substrate

Biosensors

Dark field optical imaging

Drug delivery carrier

**Ordering Information**

Website: [www.abvigen.com](http://www.abvigen.com)

Phone: +1 929-202-3014

Email: [info@abvigenus.com](mailto:info@abvigenus.com)