

Hi-Colloidal™ Silver Nanoparticles

<u>Product Name</u>	<u>Product Code</u>	<u>Kit Packing</u>
MBNPS001	MBNPS001 -25 ML	25 ml
	MBNPS001 -100 ML	100 ml

Intended Use: Recommended for detection, formulation or bioconjugation.

Intended User: Pharmaceutical, healthcare, food, diagnostic and agricultural industry

Introduction:

Colloidal silver is a sol or colloidal suspension of nanoparticles of silver in a fluid, usually water. The field of Silver Nanoparticles applications is increasing day by day due to its strong adsorption high biocompatibility and large surface area-to-volume ratio. Hi-Colloidal™ Silver Nanoparticles have unique optical, electronic, and antibacterial properties, and are extensively used in areas such as biosensing, photonics, electronics, antimicrobial, biomedical, diagnostics, therapeutics and catalysis applications. The optical and electronic properties of silver nanoparticles are tunable by changing the size, shape, surface chemistry, or aggregation state. Most applications in biosensing and detection exploit the optical properties of silver nanoparticles, as conferred by the localized surface plasmon resonance effect. That is, a specific wavelength (frequency) of incident light can induce collective oscillation of the surface electrons of silver nanoparticles. The particular wavelength of the localized surface plasmon resonance is dependent on the silver nanoparticle size, shape, and agglomeration state.

Description:

Citrate stabilized silver nanoparticles, Optical Density (OD) 1, Absorbance (λ_{max}) at around 420 nm

Application:

Silver nanoparticles are ideal for development of conjugates with antibody, peptide, protein, oligonucleotides and other ligands for use in applications such as Immunoblotting, Immunohistochemistry, cellular uptake, lateral flow assays, dipstick assays, antimicrobial assays, tumor targeting, ELISA, LSPR assays, SERS, light microscopy, dark field and transmission electron microscopy (TEM).

Product Information

Appearance

Form	: Liquid
Colour	: Yellowish Greenish-grey Colour
Solvent	: Purified Water
Functional Group	: Citrate
Core Diameter	: 10-60 nm (Coefficient of Variance<15%)
Optical Density (OD)	: 0.75-1.05 Abs unit
Absorbance Range	: 400-430 nm

Please refer disclaimer Overleaf.

1

Registered Office

HiMedia Laboratories Pvt Ltd.

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Storage conditions

Store product away from direct sunlight at 2-8°C. Do not freeze. Freezing causes irreversible aggregation of the silver nanoparticles. The product is stable for 12 months when stored at recommended temperature.

Warning and Precautions

When stored for a long period of time silver nanoparticles may sediment at the bottom of the flask, especially in case of larger particle sizes. Prior to use, re-suspend the sedimented particles by mixing until a homogenous solution is obtained or sonicate the sample.

Performance and Evaluation

Performance of the colloidal silver is expected when it is stored at recommended temperature and used within the expiry period.

Safety Information

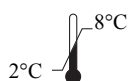
Avoid contact with skin and eyes. Take appropriate laboratory safety measures and wear gloves when handling. Please refer the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of nanoparticles and material that comes into contact with nanoparticles must be decontaminated and disposed off in accordance with current laboratory techniques.

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail to mb@himedialabs.com.



Storage temperature



Do not use if package is damaged



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Disclaimer :

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