

Hi-Colloidal™ Biosilver Nanoparticles

<u>Product Name</u>	<u>Product Code</u>	<u>Kit Packing</u>
MBNPS002	MBNPS002 -25 ML	25 ml
	MBNPS002 -100 ML	100 ml

Intended Use: Recommended for detection, formulation or bioconjugation.

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

Introduction: Colloidal biosilver is a sol or colloidal suspension of nanoparticles of silver in a fluid, usually water. These nanoparticles are biologically synthesized and stabilized. Hi-Colloidal™ biosilver Nanoparticles exhibit unique physical, chemical, and optical properties that are currently being utilized for a wide variety of biological applications such as biomedical, diagnostics, therapeutics, sensors, probes, catalysis and for antimicrobial applications. The field of Nanoparticles applications is increasing day by day due to its strong adsorption, high biocompatibility and large surface area-to-volume ratio. These are easy to conjugate and functionalize.

Among the various nanoparticles, silver nanoparticles have gained much attention due to their unique antimicrobial properties. However, concerns about the synthesis of these materials such as use of precursor chemicals and toxic solvents, and generation of toxic byproducts have led to a new alternative approach, biological synthesis. This eco-friendly technique incorporates use of biological agents, plants or microbial agents as reducing and capping agents. Biosynthesized silver nanoparticles offer a novel and potential antimicrobial activity over chemically synthesized nanoparticles.

Description: Bio-stabilized nanoparticles, Optical Density (OD)₁, Absorbance (λ_{max}) at around 420 nm

Application: Biosilver 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	: Red Brown to Dark Brown
Solvent	: Purified Water
Functional Group	: Citrate
Core Diameter	: 20 nm (Coefficient of Variance <15%)
Optical Density (OD)	: 0.75-1.05 Abs unit
Absorbance Range	: 400-450 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 biosilver nanoparticles. The product is stable for 12 months when stored at recommended temperature.

Warning and Precautions

When stored for a long period of time biosilver 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 biosilver is expected when it is stored at recommended temperature and used within the expiry period.

Safety Information

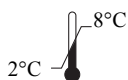
Avoid contact with skin and eyes. Take appropriate laboratory safety measures and wear gloves when handling. Please refer the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

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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