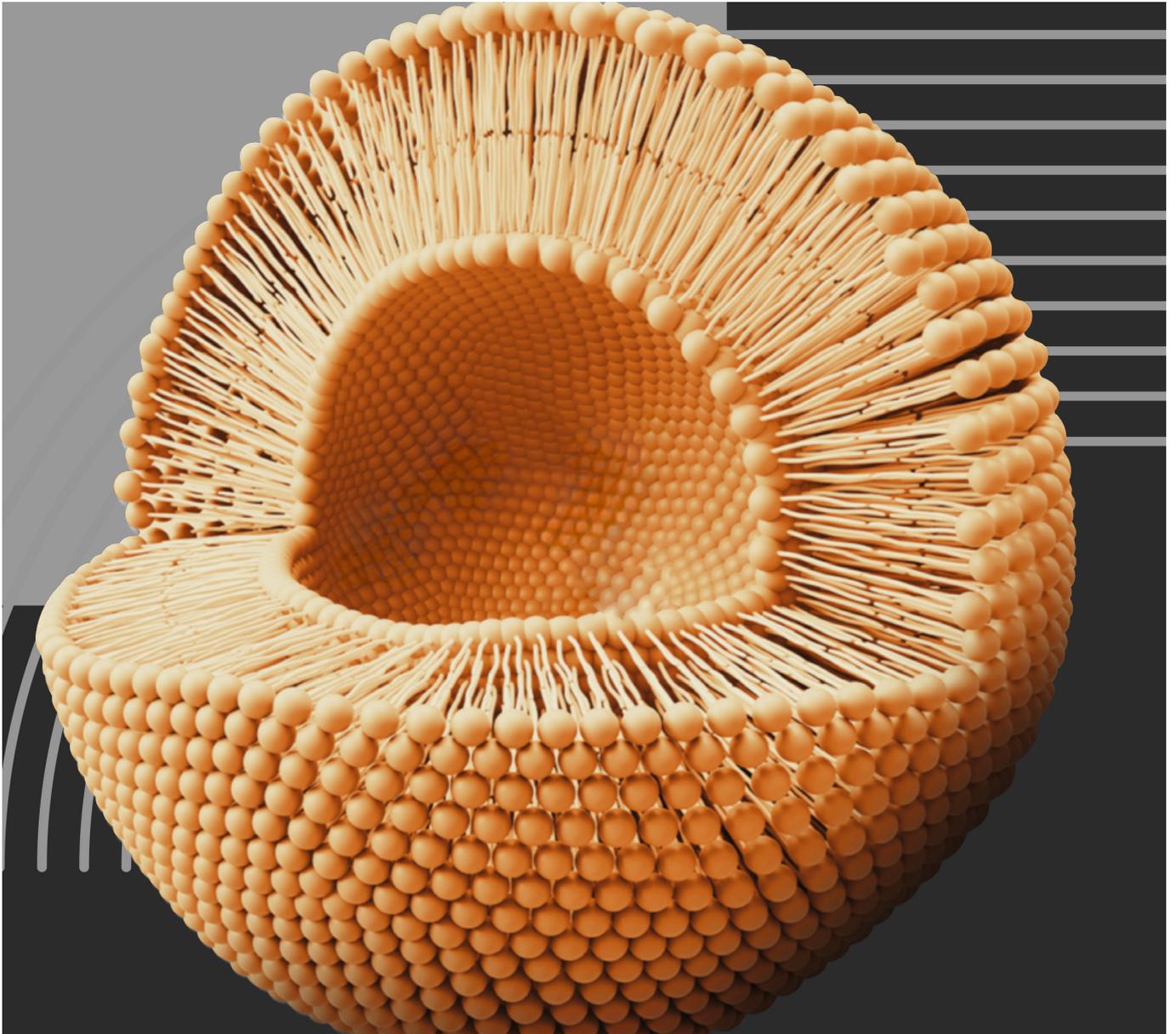


LipsoBio®



Scientifically formulated

# LIPOSOMES FOR SUPERIOR ABSORPTION

Powered by DFS Technology™ | Patent-Pending Innovation

[www.lipsobio.com](http://www.lipsobio.com)



Liposomes represent a cutting-edge advancement in nutritional supplements, expertly designed to maximize the absorption and bioavailability of essential vitamins, minerals, and other beneficial compounds. Encapsulated within sophisticated lipid spheres, these nutrients are delivered through a structure that mirrors the body's own cell membranes. This innovative approach enhances the efficiency of nutrient transport from the digestive system into the bloodstream.

## Advantages of Liposomes



Better Biodegradability



Better Tolerance



Enhanced Bioavailability



Controlled Release



Improved Stability



Potential for Lower Dosage

# About LipsoBio®

LipsoBio® is Botanic Healthcare's premium platform of next-generation liposomal formulations, crafted with precision through our proprietary DFS Technology™. Engineered for excellence, LipsoBio® delivers exceptional entrapment efficiency, consistent nanoscale particle size, and long-lasting colloidal stability.



Liposomal  
Vitamins



Liposomal  
Minerals



Liposomal  
Nutraceuticals



Liposomal  
Botanicals

1

### Improved Absorption

Enhances the Bioavailability of  
Nutrients for Better Effectiveness

2

### Stability Protection

Shields sensitive ingredients from  
degradation, ensuring longer  
shelf life.

3

### Targeted Delivery

Delivers nutrients directly to  
specific cells or tissues for precise  
health benefits.

### Taste & Odour Masking

Masks unpleasant tastes  
and odours, making products  
more enjoyable

4

### Enhanced Cellular Uptake

Facilitates better absorption at  
the cellular level

5

### Low Dosage Requirement

Achieves effectiveness with  
smaller, more efficient doses.

6



# The Science Behind the Advantage

- Stable Powder Form for easy formulation
- High Phosphatidylcholine Content for structural integrity
- Optimal Drug-to-Lipid Ratio for maximum efficacy
- Gentle Processing to preserve bioactive
- DFS Technology™ for superior stability
- GMP-Compliant Manufacturing
- Full Technical Support & Documentation, including
  - Technical Data Sheets
  - PDI Report
  - TEM Reports (Every Batch)
  - Stability Report
  - Zeta Potential Report
  - Caco-2 Study Report



## DFS Technology™

At Botanic Healthcare, LipsoBio® powered by our patent-pending Dietary Fiber Stabilized (DFS) Technology™ revolutionizes liposomal formulations. This cutting-edge innovation enhances stability, boosts bioavailability, and delivers superior performance across health supplements, functional foods, and personal care products ensuring maximum benefits in every use.

# Vitamins



Vitamin **C**



## Liposomal Vitamin **C**

Immune System | Hydration | Overall Health

Grades: 70%, 80%  
Beadlets: 50%



Vitamin **D3**



## Liposomal Vitamin **D3** & Vegan D3

Boosts Immunity | Bone Health | Muscle Health

Grades:  
Vitamin D3: 10000, 50000, 80000,  
100000 IU/g  
Vegan D3: 7500 IU/g



Vitamin **E**



## Liposomal Vitamin **E**

Hydrate Skin | Immune Health

Grade: 45 IU/g



Vitamin **B7**  
Biotin



## Liposomal Vitamin **B7** Biotin

Hair, Skin & Nail Health | Energy Metabolism

Grade: 5%

## Natural Vitamin A



### Liposomal Moringa Vitamin A

Eye Health | Immune Health | Skin Rejuvenation

Grade: 5%

## Vitamin K2



### Liposomal Vitamin K2

Bone Health | Cardiovascular Health

Grade: 2000 mcg/g

## Minerals



Fe



### Liposomal Iron

Energy | Vitality | Hemoglobin Support

Grades:  
 Ferrous Ascorbate: 7.5%-10%  
 Ferrous Bisglycinate: 10%  
 Ferrous Fumarate: 10%  
 Ferric Pyrophosphate: 10%



Mg



### Liposomal Magnesium

Muscle Health | Nerve Health | Overall Well-Being

Grades:  
 Mg Citrate: 5%  
 Mg Oxide: 25%  
 Mg Bisglycinate: 5%, 20%



Zn



### Liposomal Zinc

Vision | Immune Health

Grades:  
 Zn Sulphate: 15%  
 Zn Citrate: 20%  
 Zn Oxide: 20%

LIPOCALX<sup>®</sup>



Ca



**Liposomal Calcium**

Bone Strength | Teeth |  
Muscle Function

Grade: Ca Citrate 10%

Feleaf<sup>®</sup>



Fe



**Liposomal Curry Leaf Iron**

Iron Levels | Overall Health |  
Vitality

Grade: 3%

••••• Nutraceuticals

LipoQ10<sup>®</sup>



CoQ10



**Liposomal Coenzyme Q10**

Heart Health | Cellular Energy |  
Antioxidant Protection

Grade: 30%

NMN



**Liposomal NMN**

Cellular Energy | Anti-Aging

Grade: 50%

Hyaluronic Acid



**Liposomal Hyaluronic Acid**

Skin Elasticity | Reduces Visible  
Aging Signs | Joint Comfort

Grade: 1%

## Resveratrol



### Liposomal Resveratrol

Healthy Aging | Cardiovascular Health | Cellular Protection

Grade: 10%

## Creatine



### Liposomal Creatine

Muscle Strength

Grade: 30%



## Collagen



### Liposomal Collagen

Skin Health | Joint Health | Anti - Aging

Grade: 80%



## Glutathione



### Liposomal Glutathione

Detoxification | Immune Health | Overall Cellular Protection

Grades: 50%, 70%, 85%, 90%  
Beadlets: 60%

# Botanicals



## Liposomal Ashwagandha

Stress Reduction | Energy |  
Mental Clarity

Grade: 2.5%



## Liposomal Boswellia

Joint Health | Digestive Health |  
Overall Well-Being

Grade: 10%



## Liposomal Turmeric

Joint Health | Immune Health |  
Overall Well-Being

Grade: 30%



## Liposomal Berberine

Blood Sugar Levels |  
Metabolism | Weight Balance

Grade: 35%

Lipo-GC<sup>®</sup>



### Liposomal Garcinia

Weight Management | Overall Well-Being

Grade: 60%

Biothistle<sup>®</sup>



### Liposomal Silymarin

Liver Health | Overall Well-Being

Grades: Cosmeceutical - 8%  
Nutraceutical - 10%

KAVASOL<sup>®</sup>



### Liposomal Kava

Relaxation | Stress Relief

Grade: 10%

LipoCaff<sup>®</sup>



Caffeine



### Liposomal Caffeine

Mental Alertness | Physical Performance | Fatigue Reduction

Grade: 70%

## Capsaicin

### Liposomal Capsaicin

Weight Management |  
Cardiovascular Support

Grade: 2%

## Bacopa



### Liposomal Bacopa

Enhances Learning |  
Overall Brain Function

Grade: 20%

## Ginkgo



### Liposomal Ginkgo

Cognitive Performance |  
Cellular Resilience

Grade: 7%

## Lutein



### Liposomal Lutein

Eye Health | Blue-Light  
Protection

Grade: 20% Oil & Powder

## Saw Palmetto



### Liposomal Saw Palmetto

Prostate Health | Hormonal Balance | Hair Wellness

Grade: 20%

## Piperine



### Liposomal Piperine

Metabolic Health | Digestion | Antioxidant Defense

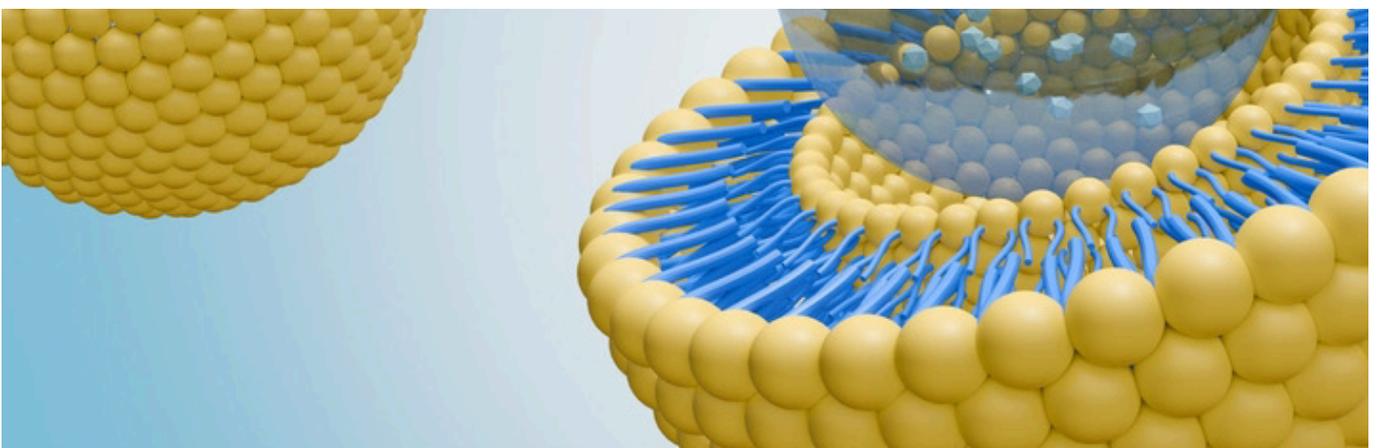
Grade: 30%

## Quercetin

### Liposomal Quercetin

Immune Health | Metabolic Balance | Cellular Protection

Grade: 60%



# Synergistic Blends



## Liposomal Glutathione + Liposomal Curcumin

Antioxidant | Skin Health |  
Joint Health | Immunity  
| Healthy Aging

Grade: 80:20 Blend

## Liposomal D3 + K2 + Elemental Magnesium (as Magnesium Oxide)

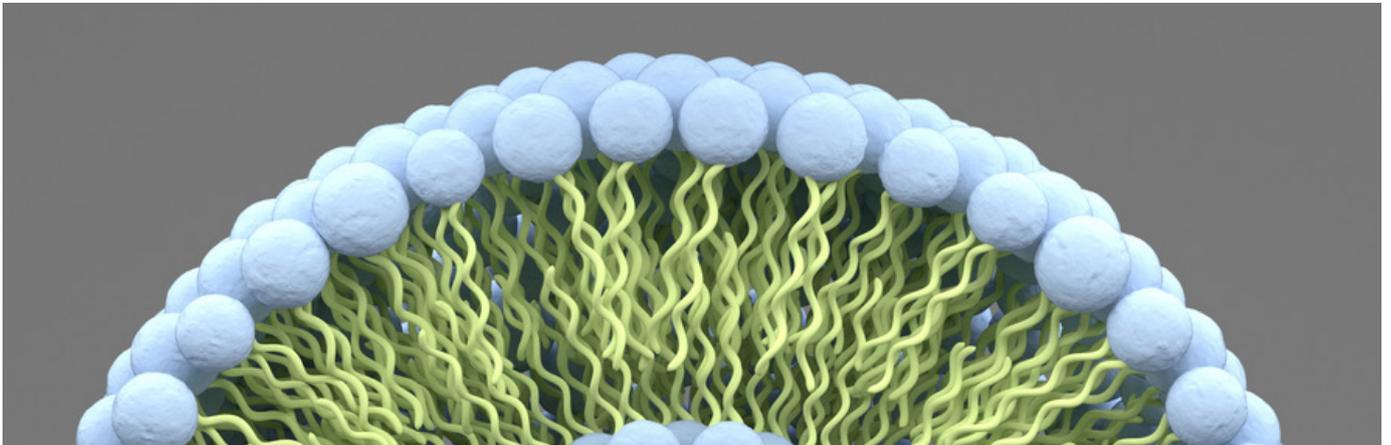
Bone Strength | Muscle  
Support | Heart Health

Grade: Liposomal D3 2000 IU/g +  
K2 0.02% + Elemental Magnesium  
16% (Magnesium oxide) Blend

## Liposomal Vegan D3 + Vitamin K2

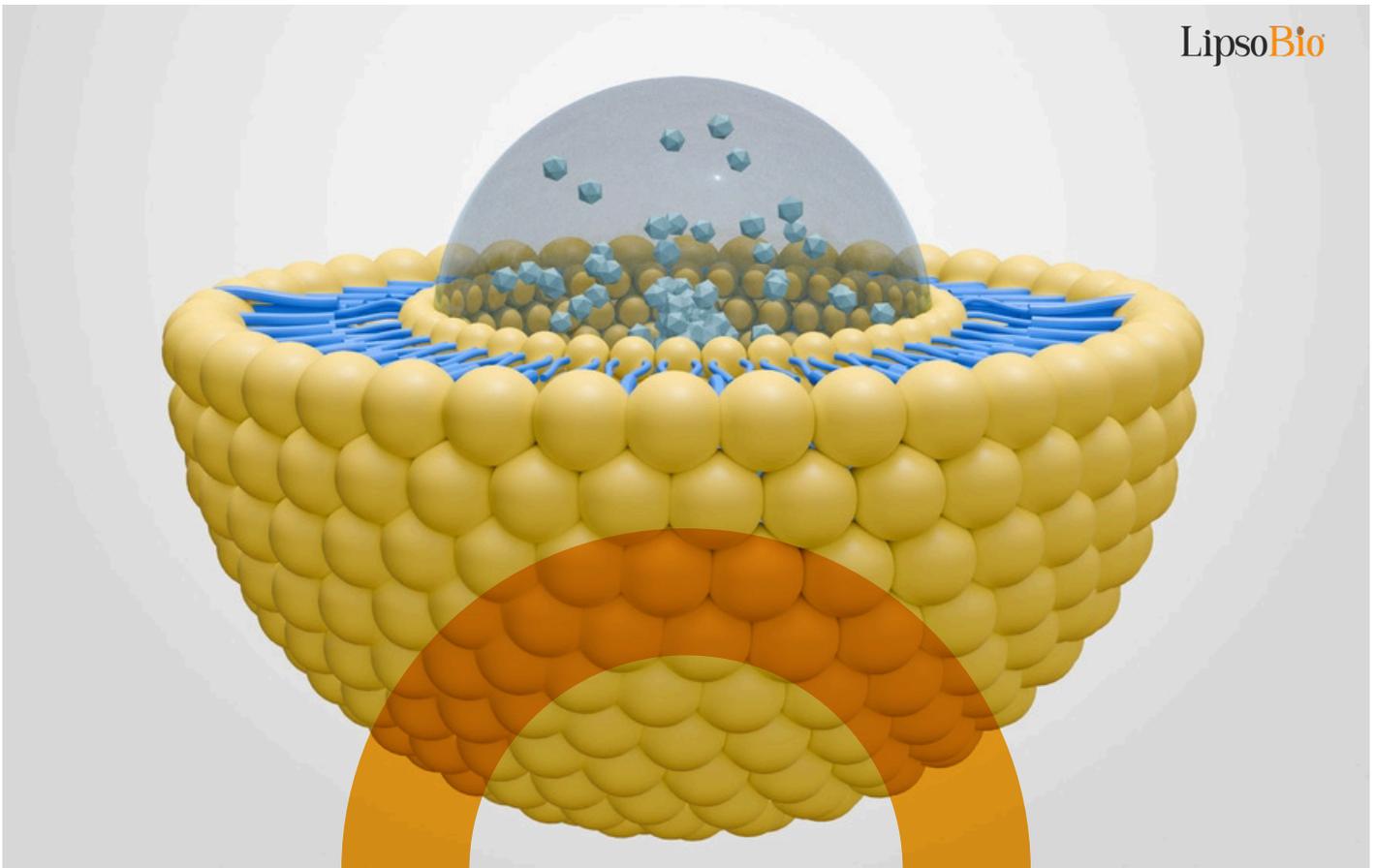
Bone Health | Cardiovascular  
Support | Immune Function

Grade: Vegan D3 (4000 IU/g)  
and Vitamin K2  
(175 mcg/g) Blend



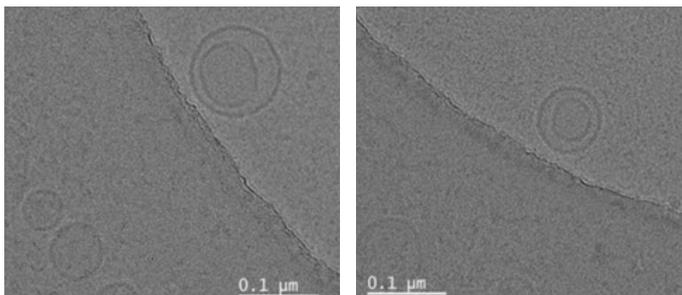
### Every batch of LipsoBio® goes through advanced analytical Protocols

- Cryo-EM / TEM Imaging – Confirms vesicle structure & uniformity
- Zeta Potential Testing – Validates stability & charge integrity
- Encapsulation Efficiency – Ensuring actives reach where they matter

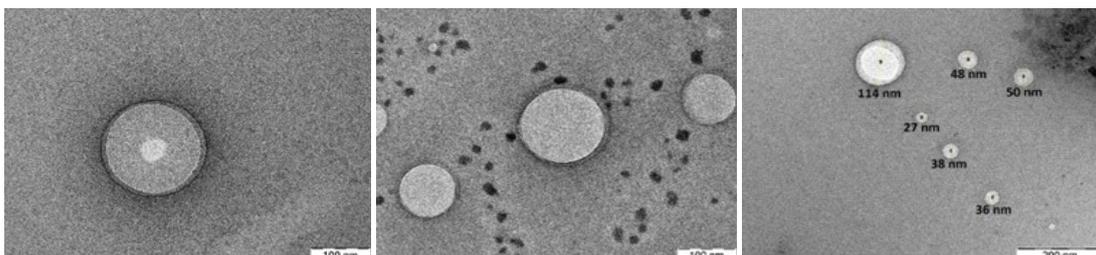


## ●●●○ LipsoBio® ●●●○ Characterization

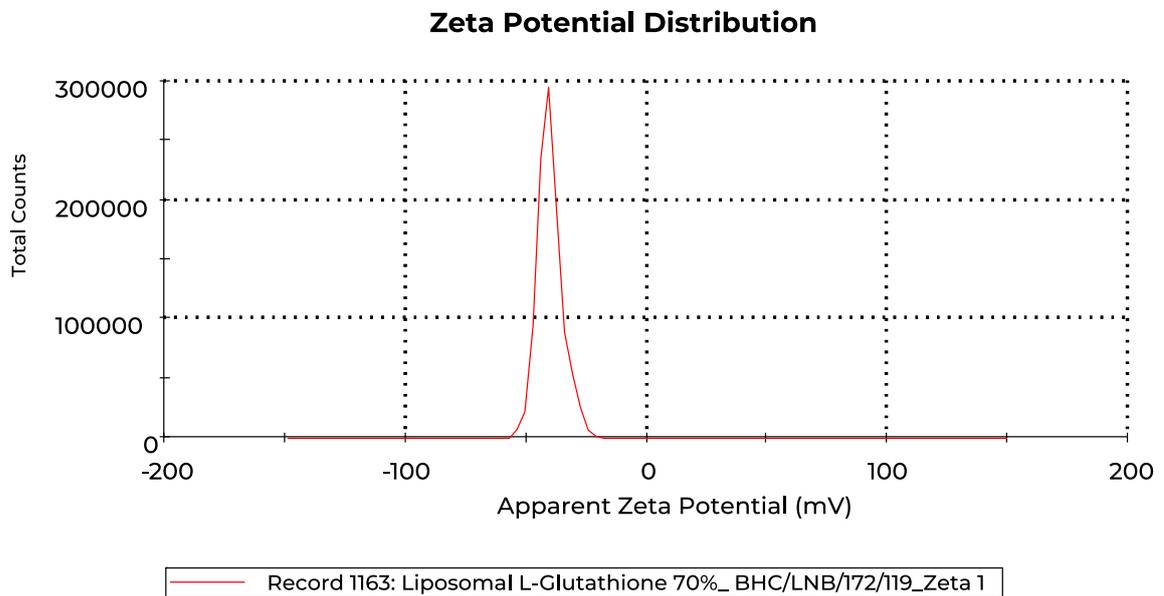
- Cryo-EM: Preserves and visualizes Liposomes in their natural, hydrated state.



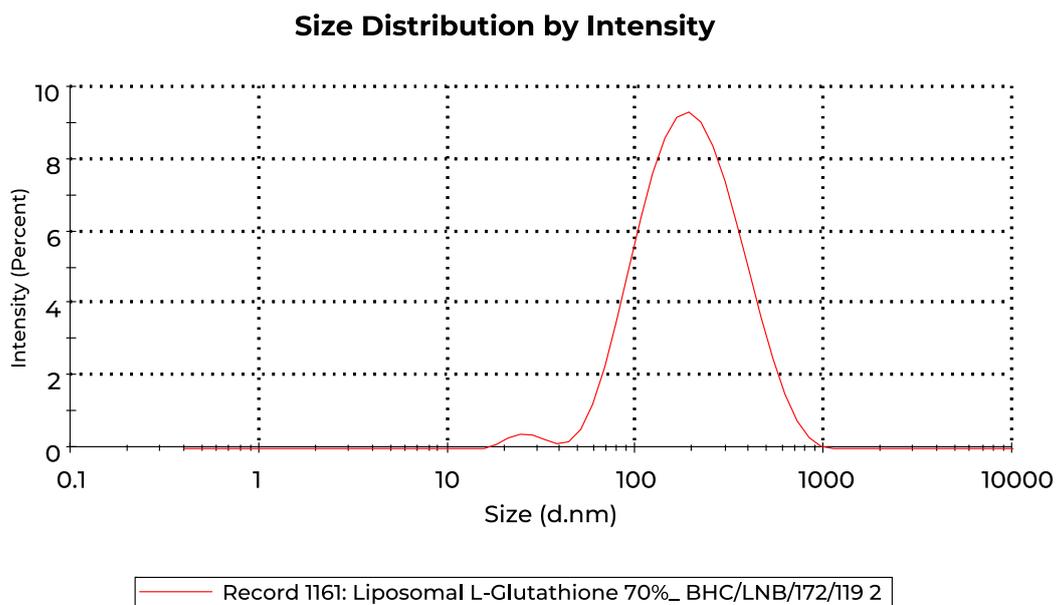
- Transmission Electron Microscopy (TEM): Reveals Liposome shape and verifies structural uniformity across batches.



- **Zeta Potential:** Measures surface charge to predict and enhance Liposome stability.



- **PDI (Polydispersity Index):** Evaluates particle size distribution to ensure uniformity and consistent quality.



## ● Encapsulation Efficiency (EE%)

Indicates the percentage of active nutrients securely enclosed inside Liposomes. A high EE%, typically 70–90%; means stronger protection from degradation, improved stability, and more effective delivery for maximum bioavailability.

## ● Caco-2 Permeability Testing

A laboratory model that simulates the human intestinal lining to evaluate how effectively Liposome encapsulated nutrients are absorbed. This testing compares different formulations to identify those with superior absorption, helping ensure optimal bioavailability and product performance.

## ● Clinically Substantiated

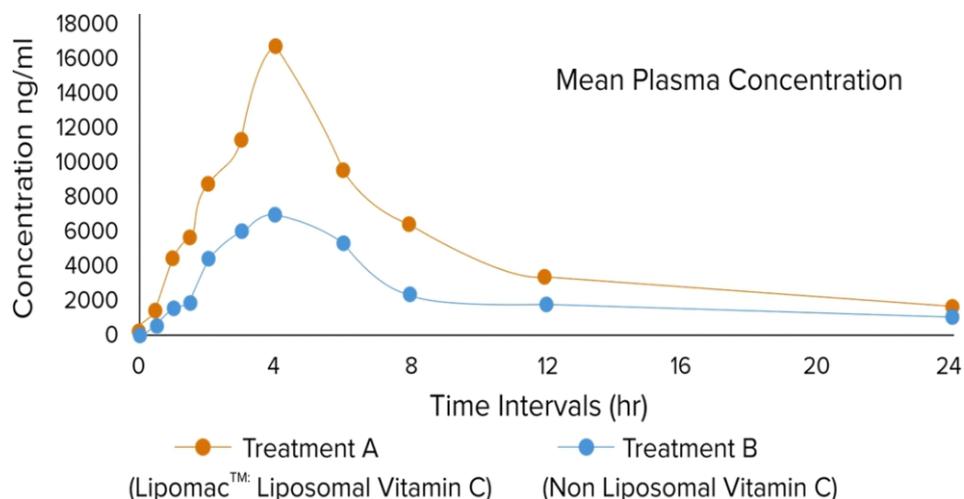


### Liposomal Vitamin C

Bioavailability of Lipomac™ (Liposomal Vitamin C) and Non-Liposomal Vitamin C formulations in healthy adult human volunteers

**Participants:** 12 healthy adults

- **Test Product:** Lipomac™ (Liposomal Vitamin C) - 500mg (2 capsules/day)
- **Reference Product:** Non-Liposomal Vitamin C - 500mg (2 capsules/day)



Mean Plasma concentration of Lipomac™ and Non-Liposomal Vitamin C

LipsoBio®: Range of liposomes are manufactured in a dedicated facility approved by global customers



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