



BioTess™

# GlutathionePro™

THE FUTURE OF NUTRITIONAL SUPPLEMENTS



## For Optimized Antioxidant Support and Overall Well-Being

GlutathionePro™ is a revolutionary ingredient that will enhance the nutritional supplement market. A proprietary compound whose active ingredient is the S-acetyl glutathione complex, GlutathionePro is specifically formulated to optimize antioxidant support and overall well-being. This advanced form of glutathione is a vital antioxidant crucial for detoxification, immune support, and cellular health.

Engineered with precision, GlutathionePro is the ideal choice for manufacturers and co-manufacturers seeking to improve their supplement offerings with a scientifically backed, high-efficacy ingredient.

## The Global Glutathione Market Is Growing Rapidly

**The global glutathione market is poised for significant growth.**

### Key Growth Drivers:

- Increasing awareness of glutathione's health benefits.
- Rising demand for anti-aging products.
- A growing aging population.
- Expanding pharmaceutical applications.

Source: [www.fortunebusinessinsights.com/glutathione-market-108665](https://www.fortunebusinessinsights.com/glutathione-market-108665)  
<https://www.futuremarketinsights.com/reports/glutathione-market>

### GLUTATHIONE MARKET STATISTICS



Market Size (2023)

**\$238.3 MM**

Market Size (2032)

**\$439.5 MM**



CAGR (2024–2032)

**7.1%**



Segment Statistics

Pharmaceutical / Glutathione Reduced

**\$199.3 / \$280.8 MM**



Regional Statistics

North America

**185.6 MM**

Source: [www.gminsights.com/industry-analysis/glutathione-market](https://www.gminsights.com/industry-analysis/glutathione-market)

## GlutathionePro: Health On a Cellular Level

### S-Acetyl Glutathione Complex Ingredient Benefits

Glutathione is a vital antioxidant essential for various physiological processes in the body, including detoxification and immune function. Glutathione's popularity in the pharmaceutical industry is surging, which has increased its commercial production. Rising demand for pharmaceutical products and growing awareness of its health benefits are expected to further boost its market potential.

Glutathione's potent antioxidant properties neutralize free radicals, thus protecting cells from oxidative damage, making it ideal for anti-aging supplements. As the population ages and consumers become more desirous of anti-aging solutions, the global glutathione market is poised for growth. Additionally, its role in promoting tissue repair and wound healing is spurring interest in pharmaceutical formulations, potentially contributing to faster recovery and reduced scarring.\*

As far back as 2006, a Danish study found that a high glutathione level is causally related to higher life expectancy. The researchers enrolled 41 centenarians in a study that measured glutathione levels. Their results showed that glutathione levels were highest in the healthiest seniors. Centenarians had higher levels of glutathione than individuals 20–40 years younger, suggesting that their glutathione level is one reason they lived to such an age.<sup>1</sup> In another early study published in *The Lancet*, researchers found the highest glutathione levels in healthy young people and lower levels in healthy elderly. In addition, they found even lower glutathione levels in sick, elderly patients and the lowest of all in the hospitalized elderly.<sup>2</sup>



### The S-Acetyl Glutathione Complex

Glutathione neutralizes free radicals and eliminates toxic substances. Its depletion is linked to chronic diseases, inflammatory conditions, and aging. During normal aging, the production and recycling of glutathione decline, making it necessary to supplement to maintain an optimal level. However, because glutathione is rapidly degraded in the stomach, only a small amount typically reaches the cells where it is needed.

Adding an acetyl group to create S-acetyl glutathione protects the molecule through the digestive tract, allowing it to cross the blood-brain barrier. By crossing this barrier, S-acetyl glutathione provides protection in the brain at levels other glutathione supplements cannot achieve. In addition, the extra acetyl group is believed to bind to DNA, offering DNA methylation benefits that enhance cognition.

\*Source: [www.fortunebusinessinsights.com/  
glutathione-market-108665](http://www.fortunebusinessinsights.com/glutathione-market-108665)

## Enhanced Antioxidant Support Backed by Scientific Research

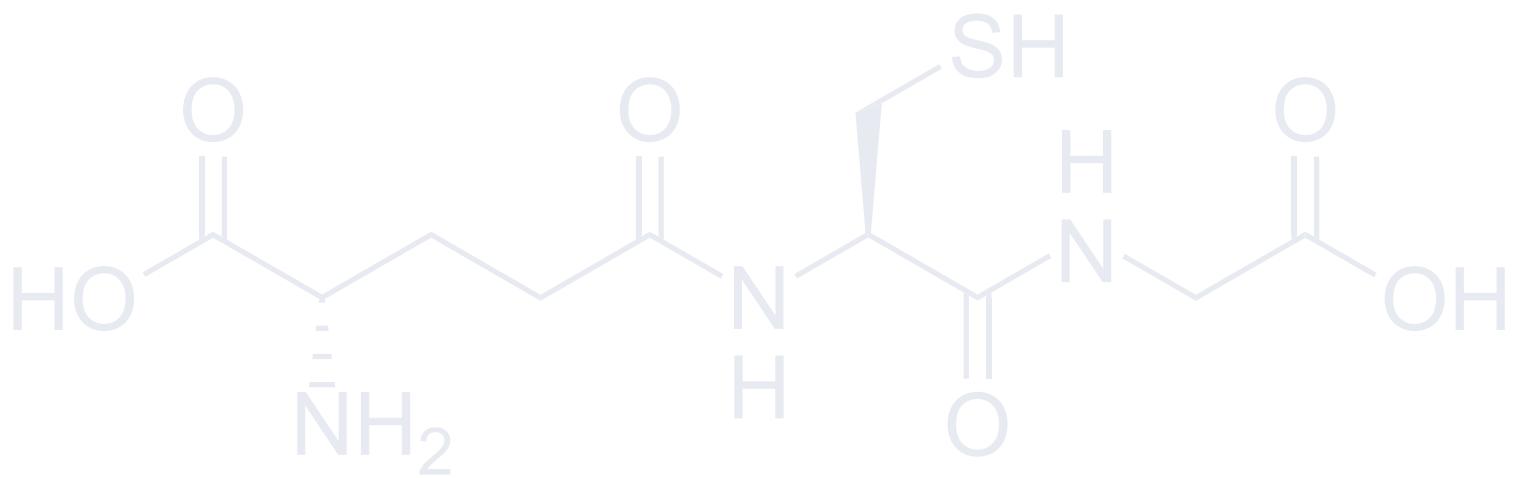
### KEY BENEFITS OF GLUTATHIONEPRO

**Enhanced Antioxidant Support:** GlutathionePro effectively increases intracellular glutathione levels and possesses the ability to cross the blood-brain barrier, essential for protecting brain cells from oxidative damage.

**Improved Absorption:** Ensures optimal delivery, bio-accessibility, and effectiveness of glutathione in the body.

**Scientific Validation:** Backed by scientific research.

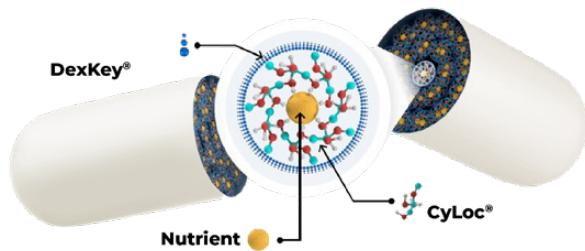
**Consumer Appeal:** Addresses the growing consumer demand for antioxidant and healthy aging supplements.



## The Future of Single-Molecule Supplementation Technology

### A NANOMOLECULAR DELIVERY SYSTEM

BioTess leverages Tesseract Medical Research's revolutionary delivery technology, thus ensuring the effective oral supplementation of glutathione. This advanced delivery system enables nutrients to pass safely through the stomach, preserving their integrity and enabling precise release and absorption in the gut.



See the Technology in Action  
Scan to watch the video on how it works.



#### Patented CyLoc®—DexKey® Technology:

Produced with dynamic atomization, resulting in stable, consistent powder quality and precise control over powder properties, including minimal residual moisture in the cyclodextrin matrix. The active ingredient is locked in a specialized molecular food matrix with an accompanying release agent to ensure its solubility. Millions of molecules are then released into the gut microbiome, one molecule at a time, precisely where needed.

**CyLoc** technology allows nutrients to pass safely through the stomach, where stomach acids would otherwise degrade the nutrients' integrity.

**DexKey** technology accompanies each protected nutrient molecule and breaks open the dextrin fiber cage at the desired release point in the intestinal tract, to ensure a targeted delivery.

Historically, glutathione has been effectively administered only through IV therapy, offering a brief increase in levels but requiring frequent and costly treatments. Before Tesseract's technology, traditional oral supplementation of glutathione yielded only minimal improvements.

Source: <https://pubmed.ncbi.nlm.nih.gov/21875351/>.

## Glutathione Level Study Results

Today, with Tesseract's groundbreaking, patented CyLoc-DexKey technology, BioTess GlutathionePro is revolutionizing glutathione delivery and absorption in an oral form. A study of 32 patients whose glutathione levels were measured before and after oral supplementation with BioTess's GlutathionePro™ returned an unprecedented 67% average increase in glutathione levels\*.

\*Source: Michael F. Cantwell, MD, MPH

PATIENT INFO		INITIAL GLUTATHIONE LEVEL			GLUTATHIONEPRO GLUTATHIONE LEVEL			% INCREASE
#	INITIALS	ORIG. GSH TEST DATE	SUPPLEMENT DOSE	UPDATED LEVEL 1 (μmol/L)	ORIG. GSH TEST DATE	GLUTAPRO DOSE	UPDATED LEVEL 1 (μmol/L)	
AM	PM							
1	AB	9/14	NONE	224	4/19	2 caps	—	685 205.87%
2	KS	3/15	NONE	372	2/19	2 caps	2 caps	1093 193.80%
3	AP	10/17	NONE	454	12/18	2 caps	—	1251 175.50%
4	SE	3/18	NONE	338	10/18	2 caps	—	906 168%
5	KS	9/19	NONE	440	2/20	2 caps	—	885 101.10%
6	AR	5/17	NONE	518	11/18	2 caps	—	1032 99.20%
7	RM	3/20	NONE	520	7/20	2 caps	—	990 90.40%
8	ME	10/19	NONE	540	1/20	2 caps	—	920 70.40%
9	RP	4/15	NONE	642	4/19	2 caps	—	1089 69.60%
10	SS	2/20	NONE	710	8/20	2 caps	—	1202 69.30%
11	JR	12/16	NONE	526	6/19	2 caps	—	870 65.40%
12	WB	8/16	READISORB*	584	2/19	2 caps	—	1113 60.60%
13	LM	5/17	NONE	616	8/18	2 caps	—	968 57.10%
14	GG	10/19	NONE	710	3/20	2 caps	—	1100 54.90%
15	TB	2/18	NONE	640	11/18	2 caps	—	988 54.40%
16	NC	8/19	NONE	720	1/20	2 caps	—	1110 54.20%
17	JB	1/19	NONE	660	6/19	2 caps	—	1013 53.50%
18	MS	3/20	NONE	660	10/20	2 caps	—	1005 52.30%
19	MS	10/17	NONE	653	10/20	2 caps	—	653 48.20%
20	TC	8/19	NONE	690	12/19	2 caps	—	1002 45.20%
21	BM	10/17	NONE	763	4/19	1 cap	—	1093 43.30%
22	VN	3/20	NONE	770	8/20	2 caps	—	1098 42.60%
23	SN	12/19	NONE	810	5/20	2 caps	—	1115 37.60%
24	JP	1/20	NONE	620	7/20	2 caps	—	850 37.10%
25	DM	10/17	NONE	720	6/19	2 caps	—	963 33.80%
26	MC	4/19	NONE	720	8/19	2 caps	—	960 33.30%
27	AP	5/20	NONE	820	9/20	2 caps	—	1093 33.30%
28	AM	12/19	NONE	712	6/20	2 caps	—	930 30.60%
29	BH	1/20	NONE	850	5/20	2 caps	—	1098 29.20%
30	JM	3/15	NONE	823	10/18	2 caps	—	1033 25.50%
31	MP	6/20	NONE	821	11/20	2 caps	—	997 21.40%
32	HH	1/20	NONE	820	6/20	1 cap	—	969 18.20%
AVERAGE PATIENT INCREASE IN GLUTATHIONE LEVEL:								67.96%

\*2 TSP/AM

## Product Applications



### Nutritional Supplements:

Ideal for capsules, tablets, and powders aimed at overall wellness.



### Functional Foods:

Perfect for inclusion in health bars, gummies, beverages, and other functional foods.



### Practitioner Formulations:

Suited for advanced formulations recommended by healthcare professionals to their patients.



### Direct Sales Products:

Enhances product lines in the direct sales market with a unique and compelling health benefit.

## Why Choose BioTess GlutathionePro?

**Quality Assurance:** Manufactured in a state-of-the-art facility in Arizona adhering to the highest quality standards.

**Scalability:** Available in various quantities to meet specific production needs.

**Competitive Advantage:** Stand out in the nutritional supplement market with a tasteless, flavorless, unique bio-accessible glutathione ingredient that meets consumer demand for antioxidant support.

**3-Year Shelf Life:** Due to enhanced cyclodextrin inclusion.

## OVERVIEW

### Ingredient

- Increases intracellular glutathione levels, modulates oxidative stress, and provides optimal antioxidant support.
- Promotes cellular health at the mitochondria level.
- Supports healthy aging, natural detoxification pathways, and a normal inflammatory response.
- Most readily-absorbed and effective form of oral glutathione available.

### Technology

- Patented CyLoc-DexKey technology.
- Produced with dynamic atomization, which achieves stable, consistent powder quality and precise control over powder properties, including minimal residual moisture in the cyclodextrin matrix.
- The active ingredient is locked in a specialized molecular food matrix, with an accompanying release agent, to ensure optimal solubility. One molecule at a time is released in the gut microbiome, precisely where it is needed.
- Enhanced delivery + boosted solubility + advanced bioaccessibility.**

### REFERENCES

1. Andersen, H.R. *Age and Ageing*, 1998; 27, 643-8.
2. Nuttall S, Martin U, Sinclair A, Kendall M., *The Lancet* 1998, 351(9103):645-646

## Contact Us

Ready to innovate your product line with BioTess GlutathionePro?

Contact BioTess today to learn how we can support your formulation needs and help you stay ahead of the competition.