

NEWBIOME

Renew Your MicroBiome with NewBiome™

Tributyryn (Tb) is a structured triglyceride with 3 butyrate molecules esterified to glycerol. In short, Tb is a highly bioavailable source of butyrate, a well-known short-chain fatty acid (SCFA), which is often referred to as a “postbiotic”.

NNB uses special purification techniques to remove butyric acid, yielding a unique version of tributyrin (NewBiome®) that has no off-putting odor.



THE BENEFITS

- Gut health and microbial balance support
- Immune system health and function support
- Satiety and appetite management
- Sleep support
- Body composition support

Who It's For

Folks looking for advanced gut health support, especially useful for folks who've used prebiotics and probiotics with little to no benefits, people who are looking for immune system support and weight management support, and individuals on a low-fiber and/or low-carbohydrate diet.

How To Use

2	500 - 1000 mg
Servings per day	Per serving
	250 - 500 mg active tributyrin

OUR ADVANTAGE

Stable and non-volatile at room temperature

Favorable pharmacokinetics compared with butyrate

About 4x more potent than sodium butyrate

No off-putting odor

After oral administration, tributyrin is rapidly absorbed and hydrolyzed by pancreatic and gastric lipases, yielding glycerol and three butyrate molecules. ^[1]

Butyrate is produced in the body as a by-product of bacterial fermentation (for example, when probiotics feed on prebiotics). It plays many well-documented roles in intestine. Butyrate may also help regulate appetite by promoting the release of key anorectic hormones.

TRIBUTYRIN BY THE NUMBERS

1. Weight Management Support

- Tb significantly attenuates the increase in body weight gain (-40%) and visceral and subcutaneous adipose tissue masses (-20%) in rodents fed a high-fat diet. The increased liver weight caused by high-fat diet is partially reversed by Tb (1.38 ± 0.04 g) as well. A significant reduction in energy efficiency (-31.6%) is observed in high-fat-fed mice after treatment with Tb, suggesting an increase energy expenditure.

Tb also ameliorates glucose intolerance and partially reverts the insulin resistance induced by high-fat feeding. Tb attenuates macrophage and white adipose tissue production of inflammatory mediators. ^[2]

2. Gut Health

- In an animal experiment, tributyrin supplementation mitigates effects of combined chronic-binge ethanol exposure on disruption of intestinal TJ localization and intestinal permeability and liver injury. ^[3]

3. Sleep Support

- Oral administration of tributyrin at the beginning of the dark phase elicits robust sleep responses in mice. And in the first four hours after the treatment, time spent in non-rapid-eye movement sleep (NREMS) increases by 47% above baseline. ^[4]

4. Immune Support

- Tributylin supplementation protects against blunted immune responses, and it reduces vasculature in the mouse proximal colon caused by chronic-binge ethanol exposure. ^[5]

5. Muscle Growth

- Tributylin may be a potent promoter of muscle growth via altered satellite cell myogenesis. In an animal study, tributyrin during the neonatal phase improves growth performance, leading to a ~10% larger loin eye area and muscle fiber cross-sectional area. ^[6]

References

[1] Su J, et al. *Rapid Commun Mass Spectrom*, 18: 2217-2222, 2004. [2] Vinolo M A et al. *American Journal of Physiology Endocrinology & Metabolism*, 2012, 303(2):E272. [3] Leonel A et al. *British Journal of Nutrition*, 2013, 109(08):1396-1407. [4] Éva szentirmai et al. *Scientific Reports*. 2019, 9:7035. [5] Clueck B et al. *Journal of Immunology Research*, 2018, 2018:1-13. [6] Murray R L, et al. *Physiological Reports*, 2018, 6(10).