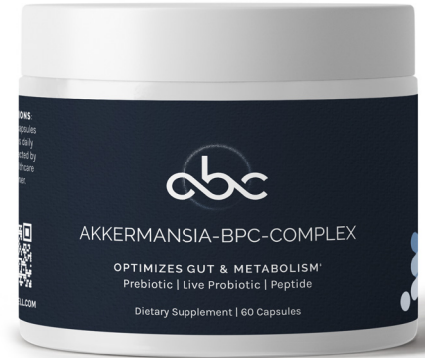




ABC

AKKERMANSIA-BPC-COMPLEX Prebiotic | Live Probiotic | Peptide*

ABC (Akkermansia-BPC-Complex) provides a new approach to cellular longevity via gut health and metabolic optimization. Informed by the latest research on microbiome profiles in Centenarians, this “first-of-it’s-kind” formulation is at the cutting edge of longevity science. Two primary areas emerge from the data as being critical for longevity: gut barrier integrity and metabolic function, especially as it relates to GLP-1. ABC is designed specifically to harness the synergistic power of **Akkermansia**, **BPC-157**, and **Sunfiber®** to support metabolic optimization and microbiome profiles found amongst blue zone Centenarians.



DEMOGRAPHIC & CLINICAL APPLICATIONS

<p>MEN & WOMEN</p>  	<p>PATIENTS REQUIRING</p> <ul style="list-style-type: none"> • Comprehensive Digestive Support • Metabolic, Specifically GLP-1, Support • Gut-Brain Axis Maintenance • Intestinal Permeability Support
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DIRECTIONS:

Take 1-2 capsules two times daily or as directed by your healthcare practitioner.

BENEFITS



Supports Healthy Gut Microbiota



Aids in Optimizing Gut Barrier Integrity



Helps Promote GLP-1 Production



Promotes Leaner Body Composition

SUPPLEMENT FACTS

Serving Size: 1 Capsule | Servings Per Container: 60

	Amount Per Serving	%DV
Akkermansia (<i>Live Akkermansia muciniphila</i>)	500 million AFU	*
Body Protective Compound (as BPC-157 Arginate Salt)	250 mcg	*
Sunfiber® Prebiotic (Galactomannan Fiber)	250 mg	*
Salcaprozate Sodium (SNAC)	1.5 mg	*

* Daily Value Not Established

Other Ingredients: Vegetable Capsule (Hypromellose, Gellan Gum), Microcrystalline Cellulose, Magnesium Stearate





AKKERMANSIA & BPC-157 BASICS

First, it is important to understand the biochemical role *Akkermansia muciniphila* plays in the gut as it relates to metabolic health. It all comes down to its interactions with glucagon-like peptide-1 (GLP-1), an important hormone produced by the intestinal cells, which plays a vital role in regulating glucose metabolism and insulin secretion. *Akkermansia muciniphila* is known to increase the production and secretion of GLP-1 in the intestine by utilizing mucin, a glycoprotein present in the mucus lining of the gut, as its primary source of energy.¹ During the process of mucin degradation, *Akkermansia* releases metabolites that stimulate the intestinal L-cells to secrete more GLP-1.² The increased levels of GLP-1 then act on various tissues, such as the pancreas, liver, and muscles, to promote better glucose control, support insulin sensitivity, and regulate appetite, ultimately contributing to improved metabolic health.³

BPC-157, on the other hand, plays an important supporting role via its effects on gut tissue and barrier integrity. This peptide is responsible for maintaining and continuously supporting the intestinal architecture, which allows the myriad of chemical interactions to occur without interruption within the gut ecosystem.

BPC-157/AKKERMANSIA SYNERGY

Because the biochemical relationship between *Akkermansia* and the intestinal barrier is heavily dependent on a high level of structural integrity within the gut lining, BPC-157 serves as the ideal companion. As BPC-157 plays a vital role in rejuvenating and maintaining gut tissues, supporting barrier function, it creates the optimal environment for *Akkermansia*'s broad biochemical function.

Additionally, SunFiber serves as a rich prebiotic source for short-chain fatty acid production, in particular butyrate. As a trio, they all work in harmony to support a healthy gut microbiome, improve nutrient absorption and optimize metabolic function. This synergistic interaction lays the foundation for longevity by fostering a resilient gut environment that contributes to overall healthspan and vitality.

METABOLISM & GLP-1 PRODUCTION

In terms of metabolic optimization, *Akkermansia muciniphila* demonstrates remarkable capabilities, particularly in increasing the production of glucagon-like peptide 1 (GLP-1). GLP-1 is an incretin hormone that plays a crucial role in regulating glucose metabolism and insulin secretion.⁴ *Akkermansia* promotes GLP-1 production through several pathways. First, it stimulates enteroendocrine cells in the gut to release GLP-1 in response to nutrient intake. Second, when *Akkermansia* provides aid to gut barrier function, it can reduce metabolic endotoxemia, which can further stimulate GLP-1 secretion. Finally, as mentioned previously, *Akkermansia* produces short-chain fatty acids (SCFAs) like acetate, propionate, and butyrate during fermentation, which have been shown to increase GLP-1 levels.⁵ The collective impact of these mechanisms results in the body's ability to support glucose tolerance, insulin sensitivity,^{6,7} and metabolic regulation, ultimately allowing for more efficient fat metabolism and more effective means to achieving lean body composition and browning white fat.⁸

CENTENARIAN INSIGHT

The most recent microbiome study in centenarians revealed fascinating insights into the gut microbiota of these long-lived individuals. One of the key findings was the abundance of *Akkermansia muciniphila* in the centenarian microbiome.⁹ The article went on to state, 'In addition, a high abundance of *Akkermansia* is a significant characteristic of elderly populations with low BMI values. Furthermore, the functional prediction results showed that the elderly longevity group had higher abilities in short-chain fatty acid metabolism, amino acid metabolism, and xenobiotic biodegradation.'⁹ The findings underscore the importance of *Akkermansia* in longevity and offer valuable insights into potential strategies for enhancing gut microbiome resilience and longevity in aging populations.



REFERENCES

1. Derrien, M. et al. (2004). Mucin-degrading bacteria from human colonic mucosa. *Bulletin of the IDF*, 388, pp.107-112.
2. Plovier, H. et al. (2017). A purified membrane protein from *Akkermansia muciniphila* or the pasteurized bacterium improves metabolism in obese and diabetic mice. *Nature Medicine*, 23(1), pp.107-113.
3. Baothman OA, Zamzami MA, Taher I, Abubaker J, Abu-Farha M. The role of Gut Microbiota in the development of obesity and Diabetes. *Lipids Health Dis.* 2016 Jun 18;15:108.
4. Rodrigues VF, Elias-Oliveira J, Pereira ÍS, Pereira JA, Barbosa SC, Machado MSG, Carlos D. *Akkermansia muciniphila* and Gut Immune System: A Good Friendship That Attenuates Inflammatory Bowel Disease, Obesity, and Diabetes. *Front Immunol.* 2022 Jul 7;13:934695.
5. Depommier C., Everard A., Druart C., Plovier H., Van Hul M., Vieira-Silva S., Falony G., Raes J., Maiter D., Delzenne N.M., et al. Supplementation with *Akkermansia muciniphila* in overweight and obese human volunteers: A proof-of-concept exploratory study. *Nat. Med.* 2019;25:1096-1103.
6. Wang Z, Cui S, Zhang T, Wang W, Li J, Chen YQ, Zhu SI. *Akkermansia muciniphila* supplementation improves glucose tolerance in intestinal *Ffar4* knockout mice during the daily light to dark transition. *mSystems.* 2023 Oct 26;8(5):e0057323.
7. Everard A., Belzer C., Geurts L., Ouwerkerk J.P., Druart C., Bindels L.B., Guiot Y., Derrien M., Muccioli G.G., Delzenne N.M., et al. Cross-talk between *Akkermansia muciniphila* and intestinal epithelium controls diet-induced obesity. *Proc. Natl. Acad. Sci. USA.* 2013;110:9066-9071.
8. Deng L, Ou Z, Huang D, Li C, Lu Z, Liu W, Wu F, Nong C, Gao J, Peng Y. Diverse effects of different *Akkermansia muciniphila* genotypes on Brown adipose tissue inflammation and whitening in a high-fat-diet murine model. *Microb. Pathog.* 2020;147:104353.
9. Ai X, Liu Y, Shi J, Xie X, Li L, Duan R, Lv Y, Xiong K, Miao Y, Zhang Y. Structural characteristics of gut microbiota in longevity from Changshou town, Hubei, China. *Appl Microbiol Biotechnol.* 2024 Apr 15;108(1):300.