

# Next-generation gut health ingredient



greenvit.pl



# ARONVIT<sup>®</sup>

by PureGreenLine<sup>™</sup>

 **Greenvit<sup>®</sup>**  
green label botanicals

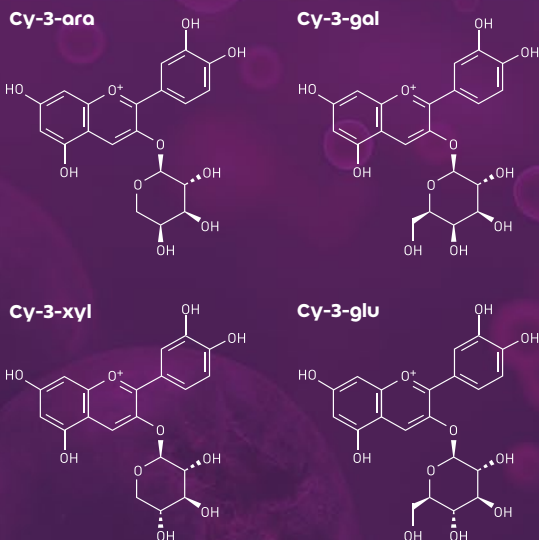
# Science behind ARONVIT<sup>®</sup>



- Anthocyanins    ● Flavan-3-ols    ● Flavanons
- Phenolic acids    ● Flavanols

**Figure 1.** The proportion of particular groups of active compounds in **ARONVIT<sup>®</sup>** expressed as the share of polyphenols determined by HPLC. The figure presents averaged results from the analysis of three separate batches of the extract.

Qualitative (LC-MS) and quantitative (HPLC) analysis of six batches of **ARONVIT<sup>®</sup>** showed that the polyphenols in it include compounds belonging to anthocyanins, flavonols, flavanols, flavan-3-ols and phenolic acids. The results of qualitative and quantitative identification of anthocyanins in **ARONVIT<sup>®</sup>** is shown in Figure 1.



**Figure 2.**

**Science Backed  
Microbiome Modulation**

  
**+21%**  
Gut Bacteria  
in 24h

  
Supports  
Butyrate-Producing  
Bacteria

**200-300 mg**  
Recommended  
dose

# What is ARONVIT®

## POLYPHENOLS FOR MICROBIOME BY PUREGREENLINE™

**ARONVIT®** by PureGreenLine™ is a solution designed to interact with the gut microbiota and support its functional balance. Its effects have been evaluated using advanced ex vivo SIFR® technology on microbiota samples from individuals with diverse bacterial compositions.

The results demonstrate that even a single dose of **ARONVIT®** can significantly influence microbial activity and composition, highlighting its potential as a next-generation prebiotic ingredient.

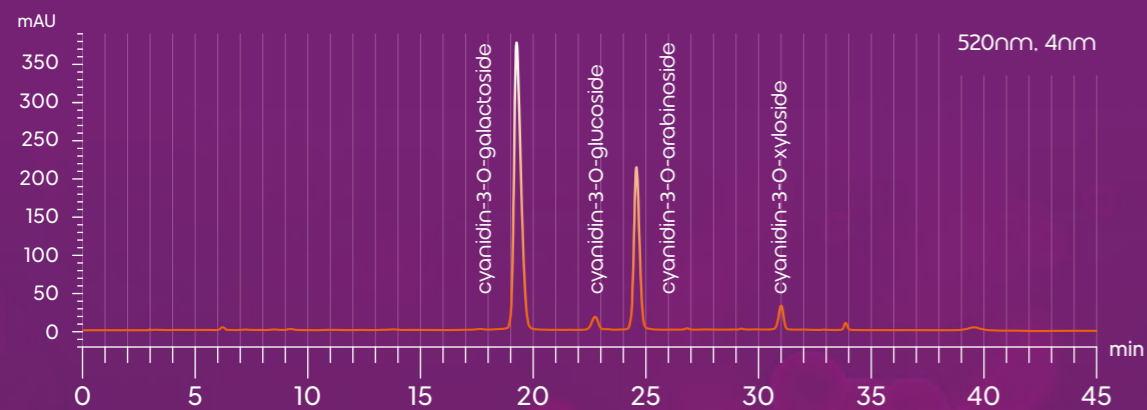


Figure 3. Anthocyanin fractions: Cy-3-gal Cy-3-ara Cy-3-xyl Cy-3-glu

Product ARONVIT® 15% Aronia berry dry extract Physico-chemical parameters	Method	Specification
Anthocyanins calculated as Cyanidin 3-glucoside chloride	SOP: L/I-54 (HPLC, USP)	min. 15%
Polyphenols calculated as catechin	SOP: L/I-02/01 (UV-VIS)	min. 25%
Total proanthocyanidins (PAC) %	DMAC (eq B2)	min. 10%

Figure 4.

# Measurable Impact on Gut Microbiota Composition

Following a 24-hour incubation period, **ARONVIT®** demonstrated a measurable increase in total bacterial cell count compared to the reference sample, confirming its prebiotic-like activity.

A detailed analysis of microbial families reveals that **ARONVIT®** selectively promotes the growth of bacteria associated with fiber metabolism, short-chain fatty acid production, and overall gut ecosystem stability.

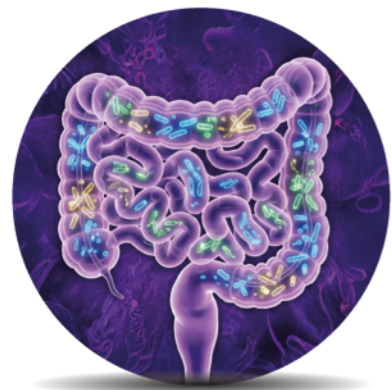
Family	Change
<b>Eggerthellaceae</b>	<b>182.33%</b>
<b>Coprobacillaceae</b>	<b>155.50%</b>
<b>Ruminococcaceae</b>	<b>52.95%</b>
Methanobacteriaceae	36.51%
Barnesiellaceae	36.21%
Bifidobacteriaceae	34.13%
Streptococcaceae	27.39%
Coprobacteraceae	17.53%

Figure 5. Changes in gut bacterial families after a single dose of **ARONVIT®** measured ex vivo using SIFR® technology.

Among the most significantly increased families are Eggerthellaceae and Coprobacillaceae, which play an important role in the metabolism of complex compounds such as polyphenols and dietary fibers. These metabolic processes generate intermediates that are further utilized by other microbial groups to produce short-chain fatty acids.

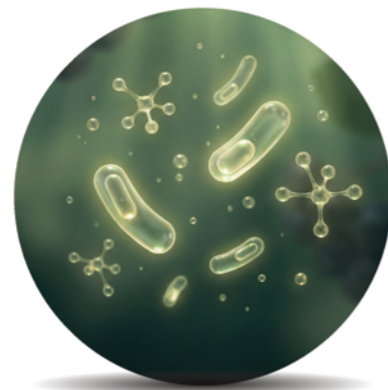
Ruminococcaceae, known as key contributors to butyrate production, also show a strong increase, supporting gut barrier integrity and anti-inflammatory balance.

# Supporting Key Microbial Functions and Metabolic Pathways



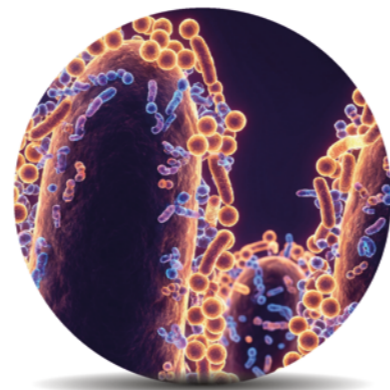
## BUTYRATE PRODUCTION

One of the most relevant outcomes of **ARONVIT®** supplementation is the stimulation of butyrate-producing bacteria such as *Faecalibacterium prausnitzii* and *Anaerobutyricum hallii*. Butyrate plays a central role as an energy source for colonocytes and is essential for maintaining gut barrier integrity.



## METABOLIC & NEXT-GENERATION BACTERIA

The extract also promotes the growth of next-generation probiotic candidates such as *Dysosmobacter welbionis*, which has been associated with improved metabolic parameters and reduced adiposity in emerging research models.



## CROSS-FEEDING

**ARONVIT®** supports complex microbial interactions, including cross-feeding mechanisms where primary degraders such as *Bifidobacterium* produce metabolites that are further converted into butyrate by other species.

Taxa	Change
Oscillospiraceae	308.99%
Faecalibacillus	159.19%
Eubacterium I. ramulus	150.86%
Dysosmobacter welbionis	128.65%
Faecalibacterium prausnitzii	94.10%
Butyribacter sp002529475	74.86%
Enterocloster aldenensis	73.69%
Anaerobutyricum hallii	70.37%

**Figure 6.** Bacterial species promoted by **ARONVIT®** intake, associated with SCFA production and metabolic health.

# Translating Microbiome Science into Functional Applications

The observed microbiome modulation indicates that **ARONVIT®** primarily supports bacterial groups associated with metabolic health, lean phenotype, and SCFA production. At the same time, a reduction in opportunistic bacteria (e.g., Clostridiaceae -12.95%) linked to inflammatory processes has been observed, suggesting a shift toward a more balanced microbial ecosystem.

**ARONVIT®** can be positioned as a functional ingredient for formulations targeting:

- gut health
- metabolic balance
- microbiome support concepts
- next-generation synbiotic formulations

Explore formulation potential with **Greenvit®!**



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