Livaux®

Anagenix.

Livaux® Contains 41 Phenolic Compounds vs only 9 in Inulin

In a recent composition study, Livaux® was found to contain 41 unique phenolic compounds across 27 classes whereas inulin was found to contain only 9 compounds across 7 classes.

As a whole fruit powder, Livaux® contains a rich composition of bioactive compounds, vitamins, minerals, and dietary fibre. Compositional analysis of Livaux shows that the **WHOLE** fruit is more than the sum of its parts when processed using Anagenix' proprietary drying technology. Primarily Livaux is comprised of vitamin C, actinidin, fibre, vitamin E, minerals, and wide-ranging polyphenols.

Livaux® has 41 uniquely identified phenolic compounds vs 9 compounds in Inulin

Phenolic Compounds In Livaux® Work on 6 Gut-Axes

A gut-axis refers to the bidirectional communication system between the gastrointestinal tract (the gut) and various other systems and organs in the body. There are several axes or pathways through which the gut communicates with other parts of the body, primarily involving the nervous system, the immune system, and metabolic pathways. The gut microbiota, metabolites produced by gut bacteria, and signalling molecules like neurotransmitters and cytokines, play crucial roles in mediating these interactions. Livaux contains compounds that work on six different axes.

6 Gut – Homeostasis Axis Compounds:

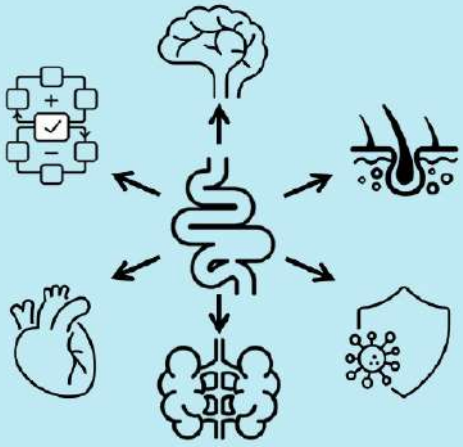
- The communication pathway between the gut microbiota, intestinal barrier, immune system, and nervous system regulates immune function, metabolism, and neurological functions. Homeostasis is incredibly important for your body to maintain all functions and imbalances in this axis can contribute to various diseases.
- 6 compounds in Livaux influence the gut – homeostasis axis

9 Gut – Cardiovascular Axis Compounds:

- Gut microbes can affect cardiovascular health through metabolic products like short-chain fatty acids (SCFAs), inflammatory modulation, and the production of bioactive compounds such as trimethylamine N-oxide (TMAO), which influence processes like cholesterol metabolism and systemic inflammation.
- 9 compounds in Livaux influence the gut – cardiovascular axis

8 Gut – Brain Axis Compounds:

- The gut microbiome regulates brain chemistry and influences neuro-endocrine systems associated with stress response, anxiety and memory function.
- 8 compounds in Livaux influence the gut - brain axis



4 Gut – Endocrine Axis Compounds: :

- The gut microbiota regulates the secretion of hormones and peptides that influence various physiological processes. It is incredibly important for hormone production which regulate appetite, digestion, and energy metabolism. Additionally, it regulates nutrient absorption: influencing overall metabolic health.
- 4 compounds in Livaux influence the gut - endocrine axis

24 Gut – Skin Axis Compounds:

- The gut microbiota and their metabolites influence skin health by affecting systemic inflammation, which impacts immune responses in the skin, and conditions such as acne, eczema, and psoriasis.
- 24 compounds in Livaux influence the gut - skin axis

22 Gut – Immune Axis Compounds:

- The gut microbiome plays a crucial role in immune system development, regulation, and response to pathogens. It regulates the functions of innate immune cells, adaptive immune cells, and intestinal epithelial cells. Our immune system plays an important role in how we respond to infections, heal wounds, and prevent cancer.
- 22 compounds in Livaux influence the gut - immune axis

Livaux®

The Bioactive Compounds:

Livaux underwent comprehensive chemical analysis revealing a rich spectrum of 41 bioactive compounds, primarily made up of polyphenols. Polyphenols are a diverse group of compounds found in plants, characterized by their antioxidant properties. They are abundant in fruits, vegetables, tea, wine, and certain grains. Polyphenols have garnered attention for their health benefits, including:

Antioxidant Activity

They help neutralize harmful free radicals in the body, which can protect cells from damage and reduce oxidative stress.

Anti-inflammatory Effects

Some polyphenols have been shown to have anti-inflammatory properties, which may help in reducing inflammation and related chronic diseases.

Cardiovascular Health

Polyphenols can improve endothelial function, reduce blood pressure, and lower LDL cholesterol levels, contributing to better heart health.

Cancer Prevention

There is evidence suggesting that polyphenols may inhibit the growth of cancer cells and reduce the risk of certain types of cancers, though more research is needed.

Neuroprotective Effects

Certain polyphenols have been studied for their potential to protect against neurodegenerative diseases like Alzheimer's and Parkinson's.

Anti-diabetic Properties

Some polyphenols may help regulate blood sugar levels and improve insulin sensitivity.

Digestive Health

They can promote gut health by acting as prebiotics, supporting the growth of beneficial gut bacteria.

The polyphenols present in Livaux can be categorized into distinct families:

Flavonoids

Key compounds include quercetin, catechin, and various flavanols, renowned for their antioxidant and anti-inflammatory effects. These compounds help combat oxidative stress, reduce inflammation, and support cardiovascular health.

Phenolic Acids

Chlorogenic acid, gallic acid, and caffeoylquinic acids exhibit antimicrobial properties and contribute to antioxidant defence mechanisms. They play crucial roles in managing oxidative stress and supporting gut health.

Curcuminoids, Lignans, Anthocyanins, and Isoflavones

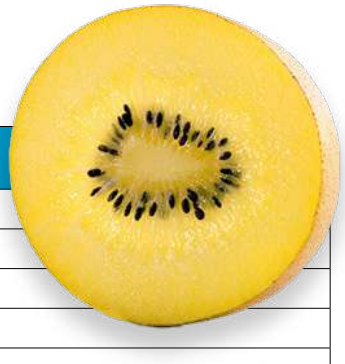
Key compounds include quercetin, catechin, and various flavanols, renowned for their antioxidant and anti-inflammatory effects. These compounds help combat oxidative stress, reduce inflammation, and support cardiovascular health.

27 distinct chemical classes of compounds were identified

Five key compounds of high interest found in Livaux®:

	COMPOUND	AXIS	EFFECT
	Quercetin	Gut – Brain, Gut- Skin, Gut – Immune, Gut – Cardiovascular	Antioxidant, anti-cancer, anti-inflammatory, cardioprotective
	Catechin	Gut – Cardiovascular, Gut – Skin	Cardio-protective, anti-microbial, anti-viral, anti-inflammatory, anti-allergenic, and anti-cancer
	Caffeoylquinic acid	Gut – Skin, Gut – Immune	Antioxidant, anti-inflammatory, anti-bacterial, anti-cancer, anti-viral, neuro-protective
	Gallic acid	Gut – Skin, Gut – Immune, Gut – Endocrine	Antioxidant, anti-atherogenic, Anti-cancer, anti-inflammatory, Anti-osteoporotic
	Chlorogenic acid	Gut – Homeostasis, Gut – Immune	Antioxidant, Anti-inflammatory, anti-cancer, antibacterial, anti-fungal, anti-viral, anti-obesity

Livaux® vs Inulin:



Proposed compounds in Livaux®	
1. 3,4-Dihydroxyphenylacetic acid	22. Demethoxycurcumin
2. 3-O-Methylgallic acid	23. Caffeoyl glucose
3. Quinic acid	24. 8-Prenylnaringenin
4. 3,4-O-Dimethylgallic acid	25. Esculin
5. Sinapic acid	26. Caffeoylquinic acid
6. Melatonin	27. Episesamin
7. Epicatechin	28. Rosmarinic acid
8. Quercetin	29. Dihydrocaffeic acid 3-O-glucuronide
9. 5,6,7,3',4'-Pentahydroxyisoflavone	30. Pinoresinol
10. Dihydroquercetin	31. Ferulic acid 4-O-glucuronide
11. 3'-O-Methylcatechin	32. Apigenin 6-C-glucoside
12. Bisdemethoxycurcumin	33. Schisandrin
13. Cinnamoyl glucose	34. Phloridzin
14. 2',7-Dihydroxy-4',5'-dimethoxyisoflavone	35. Methyl (epi)afzelechin-3-O-gallate
15. Protocatechuic acid 4-O-glucoside	36. 3-Hydroxyphloretin 2'-O-glucoside
16. Violanone	37. Schisantherin A
17. Hydroxytyrosol 4-O-glucoside	38. Rhoifolin
18. p-Coumaric acid 4-O-glucoside	39. Pelargonidin 3-O-rutinoside
19. Gallic acid 4-O-glucoside	40. Quercetin 3-O-(6″-malonyl-glucoside) 7-O-glucoside
20. 3'-O-Methylviolanone	41. Kaempferol 3-O-(2″-rhamnosyl-galactoside)7-O-rhamnoside
21. 3-p-Coumaroylquinic acid	

Livaux®

Livaux® has 355% more bioactive phenolic compounds than Inulin

Proposed compounds in inulin
1. 3-O-Methylgallic acid
2. Gallic acid 4-O-glucoside
3. Caffeoyl glucose
4. Caffeoylquinic acid
5. Methyl (epi)afzelechin-3-O-gallate
6. 3-Hydroxyphloretin 2'-O-glucoside
7. Pelargonidin 3-O-rutinoside
8. Quercetin 3-O-(6"-malonyl-glucoside) 7-O-glucoside
9. Kaempferol 3-O-(2"-rhamnosyl-galactoside)7-O-rhamnoside

41 compounds identified in Livaux, 27 classes of compounds.

Only 9 compounds identified in Inulin,
8 classes of compounds (all 9 compounds identified are found in Livaux)

Livaux emerges as a scientifically supported nutritional powerhouse, offering a synergistic combination of vitamins, minerals, bioactive compounds, and dietary fibre essential for maintaining optimal health. Its antioxidant-rich profile supports cardiovascular health, while its fibre content promotes digestive wellness and overall metabolic function.

Livaux Nutritional Profile:

Vitamins: Exceptionally high in vitamin C (ascorbic acid), vital for immune function, collagen synthesis, and antioxidant defence, and vitamin E for antioxidant protection.

Minerals: Rich source of potassium, supporting cardiovascular health and muscle function. Contains calcium, magnesium, and phosphorus essential for bone health.

Actinidin: Breaks down proteins and facilitates gastric digestion

Fiber:

- Soluble Fiber: Helps regulate blood glucose levels and lowers cholesterol, aiding in cardiovascular health.
- Insoluble Fiber: Promotes digestive health by adding bulk to stool and supporting regular bowel movements.

Polyphenols: Bioactive compounds that possesses a wide range of medical benefits.

Effective at a Low Dose of 600 mg (vs 3g of inulin) Clinically proven at 600 mg, Livaux can help support bowel regularity, microbiome balance and the growth of a wide range of probiotics and other good bacteria including *Faecalibacterium prausnitzii* (F. prau)

For more information,
please contact **info@anagenix.com**

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