Move Over Resveratrol!

PTEROVITA®



The anti-aging market has been enthralled by the extensive, clinically-proved benefits of grapes' resveratrol. Yet resveratrol's close chemical cousin, pterostilbene, may be even more valuable for our health...

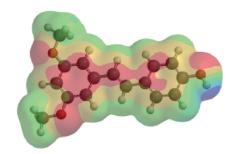
Blueberries' main antioxidant, pterostilbene keeps these superfood bushes thriving on harsh hillsides despite UV radiation, grazing, fungal attacks and extreme weather.

Emerging research indicates it can keep us safe and healthy as well. However, there has been one problem . . .

While more so than resveratrol, pterostilbene is still barely bioavailable. That is until now . . . Using cocrystal engineering, CIRCE Scientific created an innovative, completely bioavailable form of pterostilbene.

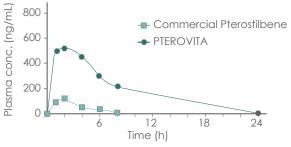
PTEROVITA® Is A Patented, Cocrystal Of Picolinic Acid And Pterostilbene With a bioavailability of 99%,

This new cocrystal form, PTERO $\hat{\mathcal{VUT}}$ a $^{\circ}$ improves pterostilbene's



- Dissolution rate by more than 35-fold
- Solubility in different media 2-5 times
- Bioavailability by a factor of 10 in vivo

CIRCE Scientific's comparative bioavailability study in Sprague-Dawley rats:



20mg/kg of PTEROVITA, which contains 68% pterostilbene, achieves 9.9 times higher levels in the blood (measured as pterostilbene AUC/dose) than 20mg/kg of regular pterostilbene.



This results in improved activity and significant dose reduction (a 1/8th dose is sufficient to achieve equivalent blood levels due to non-linear pharmacokinetics).

These two ingredients work synergistically, unlocking the natural health benefits of both compounds.

Picolinic acid

A derivative of tryptophan · Helps in mineral absorption · Supports bone strength · Supports immune system strength · Helps to sustain brain health

Therostilbene

Found in blueberries, grapes and other plants \cdot Antioxidant \cdot Supports brain health \cdot Keeps the heart and circulatory system strong and clear \cdot Helps maintain a healthy metabolism \cdot Supports liver health \cdot Helps modulate inflammation \cdot Supports a healthy gut microbiome \cdot Keeps cell division normal, even when exposed to gamma radiation \cdot Keeps bones and muscles strong

According to research published in the Journal for **Advanced Study in 2022**, pterostilbene significantly increases the activity of key signal molecules:



Nrf2 enhancing the cellular antioxidant defense system

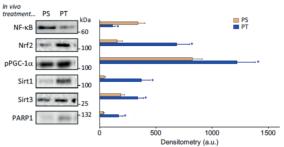
PARP1 helping to maintain DNA integrity **Sirt1 and Sirt3** supporting DNA integrity and longevity, especially when under stress



pPGC-1alfa supporting healthy energy metabolism, blood pressure and weight control

Pterostilbene reduces the activity of

NF-KB supporting cellular capacity to modulate inflammation and supporting cell longevity



Results of the action of Pterostilbene on a cellular level in mice following an injection of 100 mg/kgas.

PS: Injected Physiologic saline solution

PT: Injected Pterostilbene



Formulating With PTEROVITA®

- **PTEROVITA**® can be used in bars, milk products, juices, supplements and animal feed.
- The recommended oral dose ranges from 12.5 mg to 22.5 mg. Formulation is necessary; feel free to ask, and we will assist you.
- In its raw state, PTEROVITA® is a slightly yellow powder. Once dissolved, it becomes clear with no noticeable smell and a slightly bitter, spicy flavor.
- **PTEROVITA**® is fully soluble in water and lipids. It is highly bioavailable.
- PTEROVITA® is warrantied to be non-toxic, with 14 days of comprehensive toxicity studies at various doses.
- PTEROVITA® has been shown to be stable as a solid for at least 18 months kept at 25± 2° and 60± 5% humidity. The 2-year stability test is ongoing. High pressure and temperature as high as 90°C also did not impact stability.
- PTEROVITA® has been granted Generally Recognized as Safe (GRAS) status by an independent expert panel.
- PTEROVITA® is manufactured adhering to pharmaceutical GMP's and third party analyzed in EU GMP facility



Want to find out more about how you can use PTEROVITA® in your products?

Contact our sales team:

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Visit us at www.circescientific.com