

Morphogen Nutrition MorphoCALM Stress + Anxiety Support

written by Mike Roberto | March 22, 2022

We all know that modern life is stressful. Between the endless psychologically torturous propaganda, electromagnetic field (EMF) exposure, xenoestrogens in our food and water, and carcinogens, urban and suburban lifestyles can be incredibly taxing on our bodies and our minds.



Morphogen Nutrition MorphoCALM is a premium stress-relief supplement, and the first to use RhodioPrime 6X in this type of an application!

Not to mention the fact that most of us are running on chronically low levels of sleep and ritually abuse stimulants to compensate for our lack of rest and recovery.

Fight back with Morphogen Nutrition MorphoCALM

Today we're going to review a supplement that's designed to help us maintain our resilience in the face of these stressors – **MorphoCALM** from **Morphogen Nutrition**. We first discussed it with Morphogen's Ben Hartman on *Episode #063* of the PricePLOW Podcast, and wanted to dig deeper on the unique stress-relieving supplement.

It comes to us in true Morphogen style – with huge (and not-so-cheap) doses like *600 milligrams* of phosphatidylserine and first-to-market innovations, such as the first stress reliever to use *RhodioPrime 6X* high-salidroside Rhodiola extract.

We get into the science behind the anti-cortisol blend just after checking PricePLOW's prices and alert sign-ups:

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MorphoCALM Ingredients

In a single *three capsule serving* of **MorphoCALM** from Morphogen Nutrition, you get the following:

- **Phosphatidylserine (from sunflower lecithin) (Helianthus annuus) (oil) (std. Min 50% phosphatidylserine) – 600 mg**

Supplement Facts

Serving Size: 3 Capsules
Servings Per Container: 30

Amount Per Serving	% of Daily Value	
Phosphatidylserine (from sunflower lecithin) (Helianthus annuus) (oil) (std. min. 50% phosphatidylserine)	600mg	†
Korean Red Ginseng extract (Panax ginseng radix) (root) (std. min. 7% ginsenosides)	300mg	†
L-Theanine (HPLC)	300mg	†
RhodioPrime™ 6X Rhodiola extract (Rhodiola crenulata) (root) (std. min. 6% salidroside)	200mg	†
Shoden® Ashwagandha extract (Withania somnifera) (root and leaf) (std. min. 35% withanolide glycosides)	120mg	†
Kanna extract (Sceletium tortuosum) (aerial parts) (std. min. 0.5% alkaloids)	50mg	†
Lithium (from 130mg lithium orotate)	5mg	†

Other ingredients: Gelatin Capsule, Silicon Dioxide, Rice Flour, FD&C Red #3, FD&C Yellow #5.

*Daily Value (DV) based on 2,000 calorie diet
† Daily Value not established

A heavy dose of phosphatidylserine coupled with a hit of RhodioPrime 6X? This one's going to feel good...

Phosphatidylserine (PS) is a *phospholipid* that concentrates in the central nervous system and supports cognition. More than a few research papers have claimed that high PS consumption can help prevent cognitive decline and possibly even reduce the severity of depressive disorders in the elderly.[1-4]

When it comes to anti-anxiety and calming effects, other studies show that PS can improve stress tolerance and reduce symptoms of anxiety.[5] At high doses, PS can lower blood cortisol levels.[6]

Supplementing with PS may be especially beneficial for athletes, as preliminary evidence indicates that it might increase physical endurance.[7]

The biggest issue? Phosphatidylserine is an expensive ingredient, and we generally don't see high enough doses to make a *serious* impact on cortisol. High, expensive doses are Morphogen Nutrition's specialty, though. This is one reason the premium MorphoCALM supplement may come at a higher price tag, but wait until you've tried a higher dose of PS!

- **Korean Red Ginseng extract (std. Min. 7% ginsenosides) – 300 mg**



Ben Hartman returns to talk about Morphogen Nutrition's rebrand, some new formulas, and more on his backstory. Watch it in Episode #063 of the PricePLOW Podcast!

Also known as *Panax ginseng*, **Korean red ginseng** has a documented ability to reduce fatigue, as well as improve stress-related symptoms of depression and anxiety.[8]

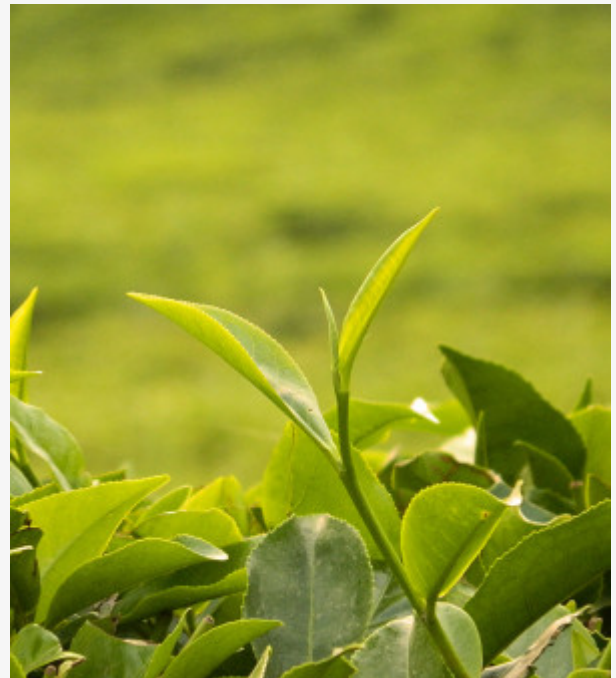
One of ginseng's most intriguing effects is its ability to reduce the extent of *apoptosis*,[9] the programmed cell death that occurs when the body is subjected to intense stress (among other times). It's believed ginseng does this by attenuating the body's inflammatory response to stress[8] (even psychological and emotional stress) through its powerful antioxidant phytochemicals.[8]

When it comes to other aspects of cognition, ginseng has been shown to improve reaction times,[10,11] working memory, arithmetic ability, and cognitive flexibility.[12]

Researchers have found that ginseng has “glucoregulatory” properties, meaning that it helps maintain healthy glucose metabolism under stress, thereby preventing stress-related declines in cognitive performance.[13]

- **L-Theanine – 300 mg**

L-theanine is an amino acid that occurs naturally in *tea leaves*. It acts as a neurotransmitter in the brain[14] and causes relaxing, anti-anxiety effects without being sedative.[15-17]



L-Theanine comes from tea leaves, and pairs very well with caffeine offset any potential anxiety.

If you’re a big coffee or tea drinker (consider cutting back on caffeine if you’re having anxiety issues!), you’ll probably like hearing that L-theanine has a synergistic effect with caffeine.[18] Subjects who took a combination of caffeine and theanine showed faster reaction times, better working memory, and higher levels of alertness

The dose here is substantial. Doses of 100 to 150 milligrams are the most common on the market. Anecdotally, 200 milligrams generally puts us in a more “chilled” state. With 300 milligrams here, this will be hard not to notice.

- **RhodioPrime 6X Rhodiola Extract (6% salidroside) – 200 mg**

There are two species of **Rhodiola** commonly used in supplement formulations – *Rhodiola rosea* and *Rhodiola crenulata*.

Although closely related, the two plants have some key differences.

Rhodiola rosea – the more commonly used species of *Rhodiola* – contains high levels of *rosavin* and *salidroside*, two phytochemical compounds responsible for most of *Rhodiola*'s various bioactive effects.



However, there is evidence that *salidroside* may be more efficacious in a few key areas of *Rhodiola*'s efficacy.[19,20]

So based on the research literature, you should try to find a *Rhodiola* extract from the *crenulata* plant, because **the concentration of salidroside is significantly higher in *crenulata*** than it is in *rosea*.[21,22]

That's why Morphogen uses the NNB Nutrition's trademarked *RhodioPrime 6X* extract – because it's sourced from *crenulata*, which helps to make it the de-facto extract on the market that has managed to achieve a whopping 6% *salidroside* standardization. By comparison, most of the commercially available extracts contain about 1% salidroside.

Salidroside: Mechanisms of Action

According to the research literature, the mechanisms of salidroside's actions are as follows:

MAO A and B inhibitory activities of *Rhodiola rosea* L. root extracts (at 100 µg/ml) and the bio-guided isolated compounds (at 10⁻⁵ M).

Sample	Inhibition (%) ^b	
	MAO A	MAO B
DCM extract	50.5 ± 0.1	66.9 ± 0.3
MeOH extract	92.5 ± 0.1	81.8 ± 0.3
Water extract	84.3 ± 0.8	88.9 ± 0.3
Fraction G-2	96.8 ± 0.2	81.4 ± 0.6
Fraction G-8	21.6 ± 0.2	88.5 ± 0.4
Salidroside (1)	-	35.8 ± 2.5
EGCG dimer (2)	43.1 ± 0.4	37.7 ± 0.5
Rhodioloside B and C mixture (3, 4)	-	61.9 ± 3.0
Rosarin (5)	-	-
Cinnamyl alcohol (6)	27.7 ± 0.6	43.2 ± 1.5
Rhodiocyanoside A (7)	-	27.7 ± 4.8
Triandrin (8)	-	40.8 ± 3.5
Rosavin (9)	-	-
Tyrosol (10)	-	26.3 ± 0.7
Rosin (11)	-	-
Rosiridin (12)	16.2 ± 2.3	83.8 ± 1.1
L-Deprenyl ^a	36.0 ± 1.0	99.5 ± 0.2
Clorgyline ^a	100.0 ± 0.2	80.2 ± 0.9

^a Reference compound.

^b Inhibition lower than 15% was considered as inactive.

Salidroside, but not rosavin, inhibits MAOB! [23]

- Increased long-term potentiation (LTP) in the hippocampus [22]
- Increased autophagy via mTOR pathway [24]
- Improved oxygen utilization via hypoxia-inducible factor-1 (HIF-1) [25]
- Upregulation of dopamine, norepinephrine, epinephrine, histamine, and serotonin [26]
- Inhibition of the monoamine oxidase (MOA) enzyme that breaks down neurotransmitters [23]
- Upregulates neurotrophin Y [24]

So as you can see, a high-salidroside *Rhodiola* extract is a powerful adaptogenic substance, which is definitely capable of alleviating your overall stress burden.

The upshot of salidroside's effects is improved cognition, [27] lower levels of stress and anxiety, [28] better mood, [28] and reduced symptoms of depression, [29].

Rhodiola has also been shown to reduce physical and mental fatigue, [30,31] increase athletic performance, [32] control appetite, [33] and improve glucose metabolism. [34]

RhodioPrime 6X goes calm



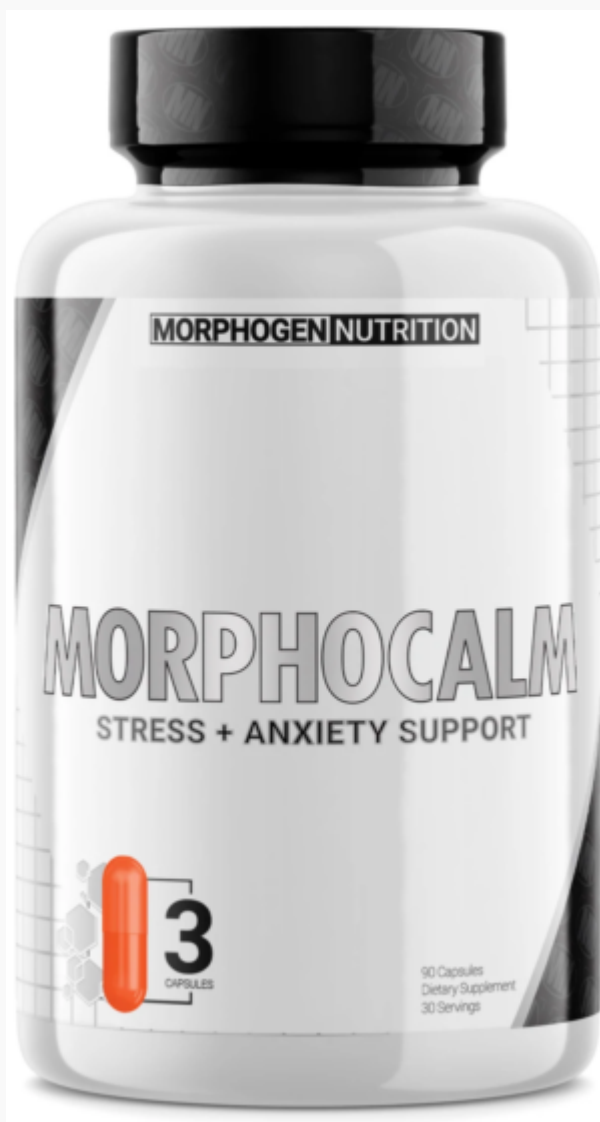
At 6% salidroside, NNB Nutrition's RhodioPrime is the best way to feel the *serious* power of this wonderful herb!

Lately, we've been seeing NNB's RhodioPrime 6X in more pre-workout supplements and even weight loss aids. These are great applications, because the ingredient helps to increase focus and "level off" high-stimulant effects. However, this is the first time seeing it in an *anti-cortisol, stress-relief supplement*, and we're extremely excited about this new application.

You can read more in our articles titled *Rhodiola: The Salidroside-Powered Adaptogen of the Vikings* and *NNB RhodioPrime 6X: The Strongest Rhodiola Extract (6% Salidroside)*.

- **Shoden Ashwagandha Extract (std. min. 35% withanolide glycosides) – 120 mg**

Ashwagandha has been used for millennia in traditional medicine systems around the world to treat a wide range of ailments. It has nonspecific effects because it's what's known as an *adaptogen*, meaning that it helps bring the body's stress response (whether too high or too low) back to its proper balance.



The sports supplement industry has seen a surge in ashwagandha utilization because recent research has indicated that the herb is one of the most efficacious natural compounds for managing both physical and mental stress.[35-38]

Although we've analyzed a number of trademarked ashwagandha preparations, the **Shoden** extract is probably our favorite. It has the highest concentration of *withanolides* – on the market, with a standardization of a whopping 35% of the active compound responsible for most of ashwagandha's benefits.[35]

By comparison, the KSM-66 extract of ashwagandha, probably the most popular in the supplement industry, only contains 5% – or sometimes even 2.5% – withanolides.

A high concentration of *withanolides* means you can expect to reap a double share of ashwagandha's typical benefits, which include protecting the body against oxidative stress, reducing inflammation, reducing symptoms of anxiety and depression, and improving immunity.[35-38]

In a 2019 study that examined the *Shoden* extract specifically, healthy adults who received 240 milligrams of Shoden per day had significantly lower levels of cortisol and significantly *higher* levels of *dehydroepiandrosterone sulfate* (DHEA), an important steroid hormone precursor.[35] Compared to placebo, these subjects had a better overall mood and lower levels of stress and anxiety.[35]

Considering the power of the Shoden extract, we are surprised to see it used as infrequently as it is. Major props to Morphogen Nutrition for chasing the higher withanolides in this one, saving room in the capsules for the other efficacious ingredients.

- **Kanna Extract (*Sceletium tortuosum*) (aerial parts) (std. min. 0.5% alkaloids) – 50 mg**

Sceletium tortuosum, also known as **kanna**, is a plant that's native to South Africa. Kanna has been used by hunter-gatherer cultures, presumably for an incredibly long time, to reduce fatigue and improve mood.[39] Hunter-gatherers traditionally chewed its leaves before or during high-stress situations,[40] but it was also used recreationally.

Kanna is able to exert its fatigue-fighting, mood-boosting effects because it inhibits *phosphodiesterase-4*, thereby upregulating *cyclic adenosine monophosphate* (cAMP),[40] a messenger molecule that is used for metabolizing glucose and fat. If you don't have enough cAMP, you won't have enough energy – and energy insufficiency is a classic symptom of anxiety.[41]

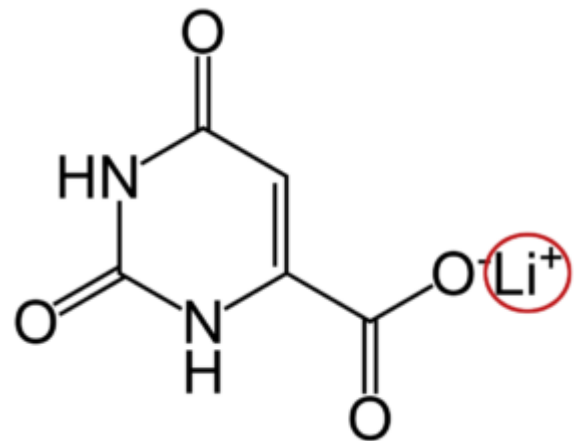


Upregulation of cAMP is linked to increased thermogenesis, and anti-obesogenic effects.[39,42] The upshot of kanna's positive modulation of metabolic energy production is that it has robust anti-anxiety and even tranquilizing effects.[43]

A 2017 research review found that kanna can significantly lower cortisol levels in those who use it regularly.[44]

- **Lithium – 5 mg (from 130 mg Lithium Orotate)**

Although it's often thought of as an antipsychotic drug, the essential mineral **lithium** is a great *mood stabilizer*.[45]



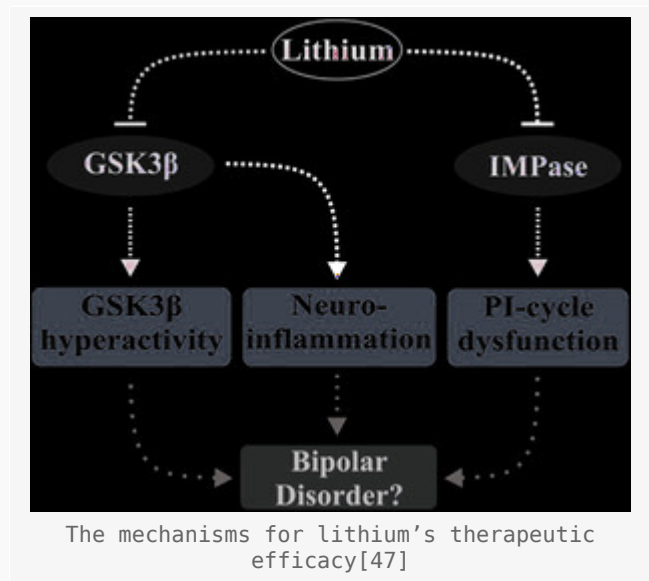
It takes 130 milligrams of lithium orotate to get 5 milligrams of lithium

Lithium occurs naturally in many common foods. Daily intake from food for most people ranges from 2 to 600 *micrograms*, depending on diet and location. The 5 milligram dose used in MorphoCALM is several times higher – so it's definitely enough to prevent deficiency, which is possible since many scientists believe the mineral to be *essential*.[46]

There's some confusion as to whether lithium is a drug or a dietary supplement, but lithium qualifies as a supplement since it has a strong basis in nature and is easily found in the food supply, but there are often benefits from *supplementing* more. While lithium *carbonate* is often a prescription drug,

recent research has shown that lithium *orotate* – a lithium salt reacted with orotic acid – is the superior form.[47]

In a study on 27 Texas counties conducted from 1978 to 1987, researchers found that towns whose water supply contained low levels of lithium had significantly higher incidences of suicide, drug addiction, and violent crime.[48] A 2013 followup study replicated this finding – the lower the lithium levels in a Texas locality's water, the higher the rate of suicide.[49]



Researchers in *Japan* published a report that came to the same conclusion. Lithium levels in water are *inversely correlated* with suicide rates.[50] Another team of Japanese researchers even claimed that low-dose lithium can increase longevity in humans.[51]

In individuals recovering from addiction to drugs and alcohol, lithium supplementation can significantly reduce relapse, and improve mood, energy, and social interaction.[52,53]

Lithium's mechanism of action

The research literature indicates that lithium inhibits *glycogen synthase kinase-3β* (*GSK-3β*),[54] leading to an increase in **brain-derived neurotrophic factor (BDNF)**, a protein that stimulates the proliferation of new neurons in the hippocampus. In rats, inhibiting *GSK-3β* has antidepressant effects.[55]

Dosage and Instructions

The label states to take 1 serving (3 capsules) per day either together or in divided doses. MorphoCALM can be taken on an empty stomach or with food.



It must be emphasized: talk to your doctor before beginning any new dietary supplement or nutrition program. This supplement should not be combined with prescription drugs unless approved by your doctor.

Conclusion

Morphocalm from Morphogen Nutrition is packed with a lot of uncommon, unusually efficacious ingredients that we love to see used together. Morphogen's research department is really on top of their game with this one.

If you want to learn more about Morphogen Nutrition and their founding principles, listen to our interview with Ben Hartman in Episode #063 of the PricePLOW Podcast. Otherwise, sign up for alerts below and we'll hit you up with the brand's next innovation:

Morphogen Nutrition MorphoCALM – Deals and Price Drop Alerts

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