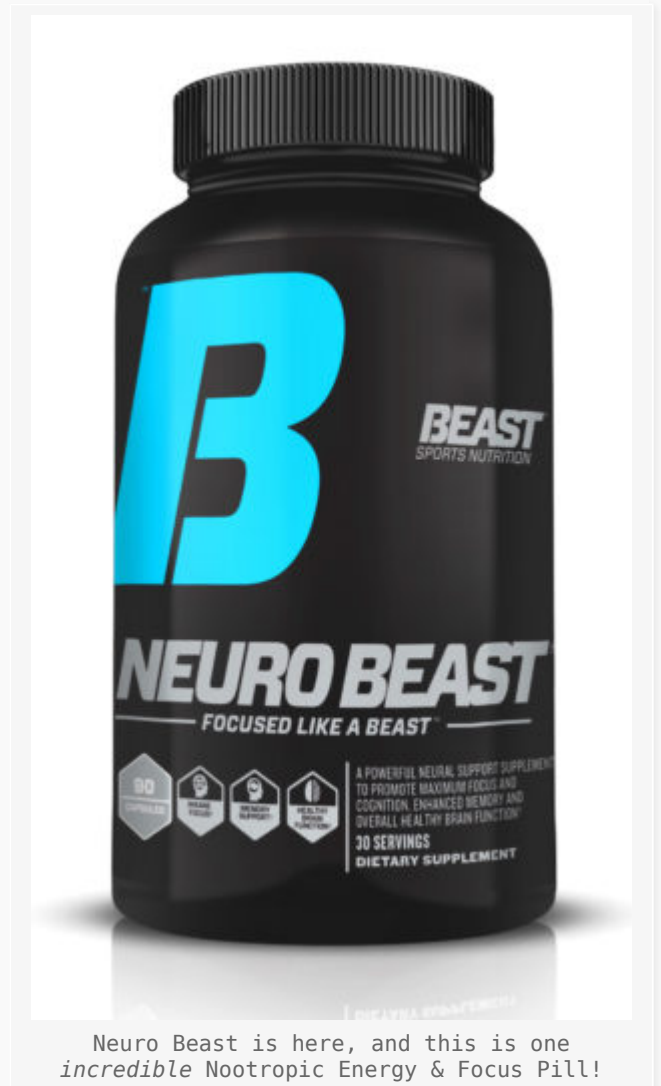


# Beast's Neuro Beast Nootropic: Guerrilla Chemist Does it Again!

written by Mike Roberto | August 1, 2019



Back in March of 2019, Beast announced that they would be partnering up with *The GuerrillaChemist (TGC)*, to formulate a new line of supplements. Based on the reputation of *both* parties, this team-up had some massive potential.

Beast and TGC first hit us with Super Test Maximum, a *loaded* iteration and update of their Super Test testosterone booster. Based on how incredible that product was (Mike's total testosterone nearly hit 800), we were primed for the next incredible collab formulation!

## Introducing *Neuro Beast*

Next, the duo set their eyes on the fast-growing *energy-nootropic* corner. **Beast Neuro Beast** is the second product from this tandem, formulated to do everything it can to put other brain-boosting formulas and energy pills to shame! Based on what Neuro Beast is packing, TGC may have just put an end to that competition – but realize that a full serving has *200mg caffeine!*

In this post, we're going to get into the nitty-gritty behind Neuro Beast – what's in it, what it can do, and why you'd want to use it. Before we get into that, be sure to subscribe to PricePLOW so you can get the best supplement deals, news, reviews, and interviews out there!

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## Our Neuro Beast Review

As mentioned in our earlier interview with The Guerrilla Chemist, Beast tasks TGC with a compliant formula – and we're starting to think that this is where Guerrilla *really* has to put in some creativity. It works, because **this is an aggressive formula**, but it's going to be smoothed out by the incredible combination of bacopa monnieri (so underrated in the nootropic world) and L-theanine.

## The Neuro Beast Ingredients

Each container of Neuro Beast comes with 30 servings, with each 3 capsule serving *stuffed* with top-notch, brain-boosting ingredients. Here's what you're getting in each serving!

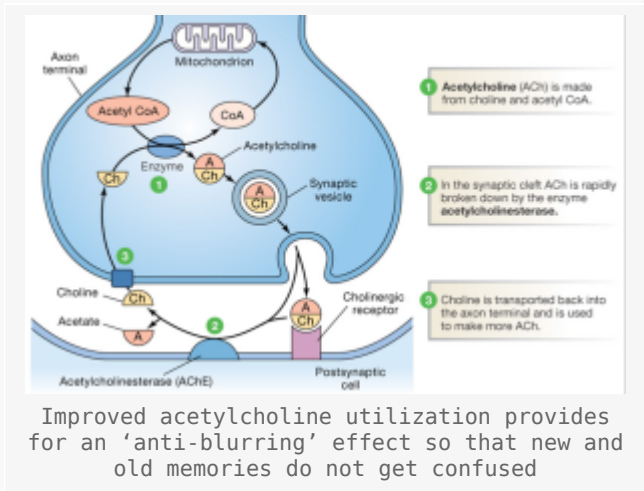
- **Alpha-glycerylphosphorylcholine (Alpha-GPC) 50% – 400mg**



What would a true nootropic be if it *didn't* make use of **alpha-GPC** somewhere on the label! Thankfully, TGC is prioritizing it here, making it the first (and heaviest!) inclusion in a *stacked* label. There's good reasons as to why, as well!

Alpha-GPC is a *phospholipid* that contains high amounts of choline.[1] Choline is a nutrient essential to proper cellular health, and is used to make *acetylcholine*, a neurotransmitter that regulates brain function and muscle control.[2] Despite there being other supplemental options, alpha-GPC is the most *bioavailable form* of choline you can get![3] But, what has alpha-GPC shown to be capable of in regards to enhancing cognition?

Acetylcholine is commonly referred to as the *learning neurotransmitter* due to its crucial importance in brain health and power. Thus, having more of it present within the body is desirable, specifically when discussing focus-enhancement. Alpha-GPC has been shown to **increase acetylcholine levels, mainly in the frontal cortex of the brain**.[4] The frontal cortex, while important for a number of different reasons, is home to the mechanisms that control **motor function and attention management**.[5] Heightened levels of acetylcholine here power up those controls and helps you *focus*!



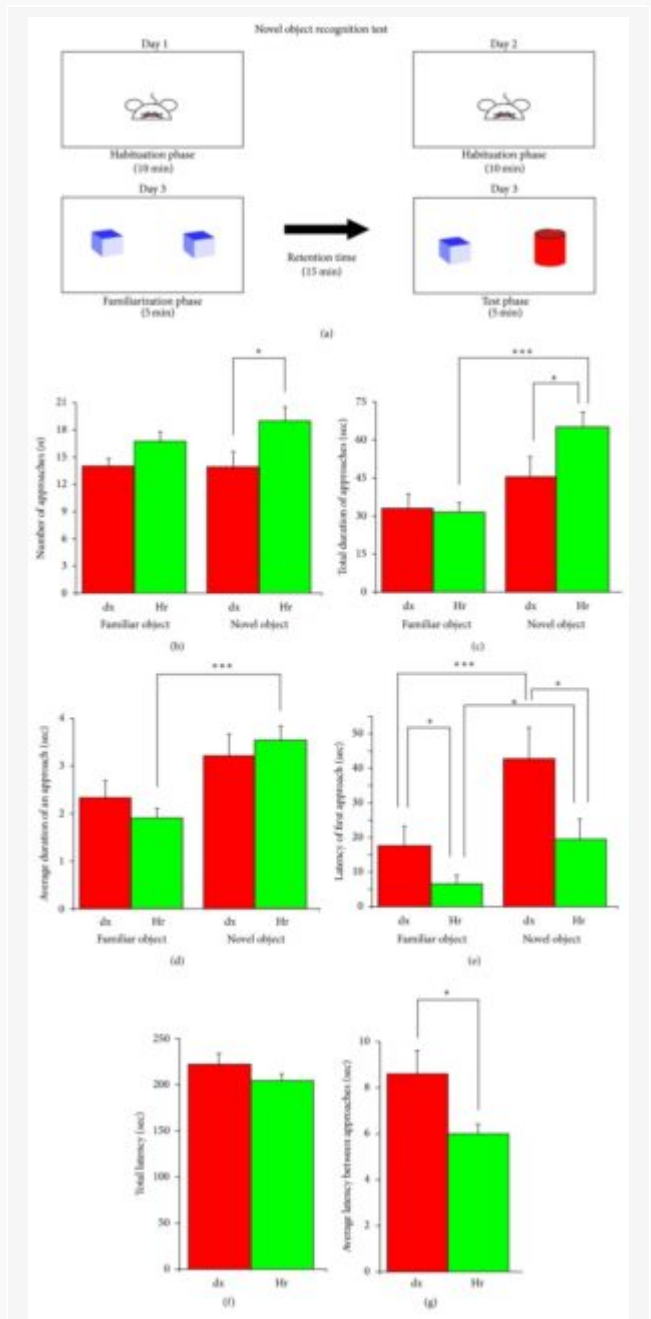
When you consider that Alpha-GPC has shown, in research, *improved memory formation* and *improved long-term cognitive health*, [6,7] (not to mention some potential *muscle power output enhancement*, which are out of the scope of this product but nonetheless noteworthy) we're really talking about an absolute *dynamo* of a nootropic here. Alpha-GPC is one of our *favorite* brain-boosting ingredients, and seeing it on a label never ceases to excite us.

With an actual ingredient yield of 200mg, we're just a tad short of the clinical 300mg dose. However, with *everything* else going on in this product, 200mg will do *just fine* in elevating your neural functioning!

- **Lion's Mane (fruit bodies and spores) (20% beta d-glucans) – 375mg**

**Lion's Mane** is a species of medicinal mushrooms that has been used across Asia, where it grows, for centuries.[8] Also known as *Hericium erinaceus*, the mushroom has numerous anecdotal uses, and has proved so effective that we've seen its use worldwide grow in recent years. When it comes to its work as a cognitive-enhancer, that growth in popularity is well-warranted!

**It's all about the beta-glucans!**



H. erinaceus increases recognition memory. Novel object recognition test (NOR) in dx (n = 10) and Hr-dietary supplemented mice (n = 15) during a 10 min session. (a) Schematic of the experimental set-up and procedure used. Histograms show (b) the number of approaches to the familiar and novel objects; (c) the total duration of approaches; (d) the average duration of an approach; (e) the latency to the first approach; (f) total latency; and (g) average latency between approaches.

While Lion's Mane contains *an endless amount* of bioactive ingredients called *polysaccharides*, [8] as most medicinal mushrooms do, there's one component that separates it from the pack. This mushroom species draws its powers from its high content **beta glucans**, which are *psychoactive* polysaccharides that directly affect the brain. In the case of this mushroom, that's a good thing!

## Cognitive booster and neuroprotector!

In discussing acetylcholine earlier, we failed to mention one key portion of the cycle of its lifetime within the body – it's breakdown.

*Acetylcholinesterase* is an enzyme that deconstructs acetylcholine, effectively limiting how long it lasts within the brain. As unfortunate as that may sound, there are methods to blocking this enzyme, and using Lion's Mane may be one of them!

Research has shown that beta glucans from Lion's Mane can *inhibit acetylcholinesterase activity*,[9] making it a potent protector of acetylcholine levels within the body. That's crucial, as this neurotransmitter is crucial in maintaining proper brain health. This is not the only case where Lion's Mane and neural health are linked, however.

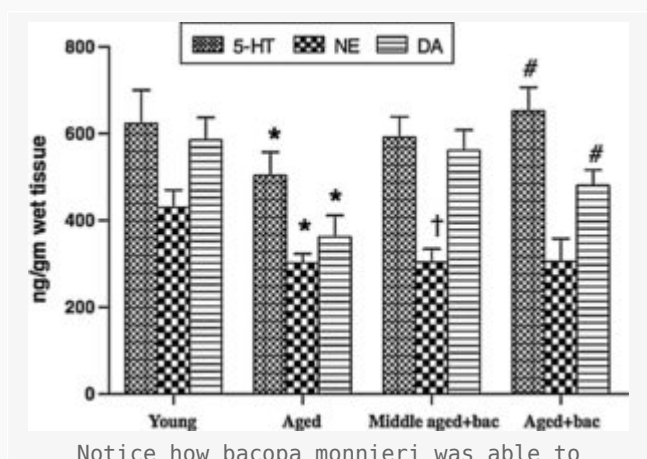
Nerve growth factor (NGF) is an essential mechanism for proper cholinergic system functioning, and for overall neural health.[10] This factor is known to be responsible for maintaining and prolonging the health of the nervous system through regulating brain cell growth. Beta glucans from Lion's Mane actually *induce NGF synthesis*,[10] and thus have a significant *neuroprotective effect* on the brain.

With 375mg of overall ingredient, this dose yields around 75mg of psychoactive beta glucans. Research has not yet been able to pinpoint a specific dose that's deemed beneficial, with some studies using only 100mg and others as much as 10g! Nonetheless, positive effects have been seen at either end of that spectrum, so we're more than happy with what we're getting here!

- ***Bacopa Monnieri* (herb) (20% Bacosides) – 240mg**

*Bacopa monnieri* is an herb that's been around for ages, with roots tracing back through the practice of Ayurvedic medicine. Traditionally, it's been used as a *memory-enhancer* and *anti-epileptic*, but only recently has science began testing how effective this underwater plant is.

### Powered by bacosides



increase levels of dopamine (DA) and 5-hydroxytryptamine (5-HT).

Similarly to Lion's Mane, this herb credits its powers to specific bioactive compounds contained within it. Called *saponins*, these plant-based chemicals aren't all too different from polysaccharides, yet not all of them are created equal. The saponins within this particular herb, called *bacosides*, are believed to be the source of cognitive benefits that *Bacopa* can yield.[11] Research conducted on these bacosides have proved quite promising, and have backed up the claims made in Ayurvedic medicine about *Bacopa*!

### Enhances brain function

A study from 2011 identified some rather intriguing results when *Bacopa* was administered to mice. Testing different dosages, not only did they find that the herb *improved both learning and memory retention*, but they also saw an increase in *dendrite length* and *overall number of dendrites*![12] Dendrites are the ends of nerve cells, and function as signal-receivers as signals (triggered by things like neurotransmitters) are sent throughout the body. Having *larger* ones, as well as *more of them*, helps promote healthy brain function, as well as defends from cognitive decline!

Another study from 2001 validates these effects. Using humans, subjects were either given 300mg of *Bacopa* or a placebo, with their cognitive ability being of interest. After 12 weeks, the group receiving the herb showed *improved visual processing, learning rate, and memory retention* when compared to placebo.[13] Sounds like this stuff is the literal embodiment of "brain-booster"!

### Protects the brain from decline

**Table 3**

Effect of *Bacopa monnieri* (300 mg/day) on neuropsychological tests (mean scores  $\pm$  SD).

Neuropsychological task	Bacopa group (n = 28)		Placebo group (n = 14)		"p" value
	Before drug	After drug	Before drug	After drug	
Digit span forwards	7.23 $\pm$ 1.11	7.85 $\pm$ 0.83	7.83 $\pm$ 1.19	7.73 $\pm$ 0.23	>0.05
Digit span backwards	8.1 $\pm$ 1.3	8.3 $\pm$ 0.9	9.1 $\pm$ 1.0	8.3 $\pm$ 0.8	<0.05*
Paired associate task	8 $\pm$ 1.3	7.7 $\pm$ 1.4	8.1 $\pm$ 1.1	7.9 $\pm$ 1.3	>0.05
Logical memory test	3.4 $\pm$ 2.6	5.2 $\pm$ 4.5	5.5 $\pm$ 2.6	4.1 $\pm$ 3.8	<0.05*
Memory span for nonsense syllables	5.4 $\pm$ 3.3	6.9 $\pm$ 2.4	4.7 $\pm$ 2.3	6.1 $\pm$ 2.9	>0.05
Finger tapping test	152.28 $\pm$ 15.75	154.56 $\pm$ 13.71	157.60 $\pm$ 14.89	158.48 $\pm$ 27.89	>0.05
Simple reaction time	221.88 $\pm$ 53.17	221.01 $\pm$ 52.16	213.13 $\pm$ 33.6	212.49 $\pm$ 33.62	>0.05
Choice reaction time	350.07 $\pm$ 52.08	340.03 $\pm$ 62.26	342.39 $\pm$ 67.54	340.95 $\pm$ 64.45	>0.05
Choice discrimination test	383.70 $\pm$ 52.54	387.06 $\pm$ 53.47	374.02 $\pm$ 51.46	379.44 $\pm$ 58.32	>0.05
Digit picture substitution test	1492.69 $\pm$ 308.58	1463.78 $\pm$ 556.55	1465.94 $\pm$ 289.94	1325.44 $\pm$ 207.07	>0.05

\*On comparing Bacopa group with placebo group by using paired Student's "t"-test.

Effect of Bacognize Bacopa monnieri (300 mg/day) on neuropsychological tests (mean scores  $\pm$  SD). Notice the massive improvement in the bacopa group vs placebo.

In a review from 2015, multiple studies were dissected in order to assess *Bacopa* as a potential antioxidant. They found studies that showed promising

results, including *defense against oxidative stress*, when bacosides from *Bacopa* were used as treatment.[14] The ability to reduce free radicals within the brain was cited in virtually every study included, which can help defend against a decline in brain function.

### **Defends against stress and anxiety**

*Bacopa* seems to be an all-encompassing enhancer of brain health, as it's shown the ability to affect your *mental health*, as well. Research suggests that the adaptogenic and nootropic effects yielded from acute supplementation can *enhance mood* and *reduce cortisol levels*, effectively *reducing stress*. [15] Most of us could use any help we can get when it comes to handling stress, so these peripheral effects are gladly welcomed.

### **Innovation at its finest**

*Bacopa monnieri* is one of the most *slept-on, underrated* nootropic ingredients we have, as it displays multiple *incredible* capabilities, yet we almost never see it being used. Leave it to The Guerilla Chemist to fix that! He includes it here, not only for its *own purposes*, but also because of its synergistic relationship with *something else* a little lower on the label!

In one dose, you're getting 240mg of the herb, which yields 48mg of bacosides. Again, clinical doses for this kind of stuff are still a bit up in the air, but we are fully confident that TGC gives you *exactly* what you need here!

### **• Bitter Orange (fruit) (30% Synephrine) – 200mg**

We typically see **synephrine** in supplements concerned with fat-burning, as the stimulant's ability to *increase metabolism* and *suppress appetite* make it a prime tool in any weight loss endeavor.[16] Seeing its inclusion here is honestly a bit peculiar at first. That being said, once you take a deeper dive into research, synephrine actually may have something to offer as a nootropic!





Synephrine seems capable of *improving mood* and *energy levels*, likely due to the fact its a stimulant. In a study from 1996, mice given synephrine before a forced swim test saw *decreased immobility* without any changes in spontaneous motor activity.[17] While that may sound a bit odd, here's what those researchers concluded – due to its ability to *stimulate alpha-1 adrenoceptors*, synephrine exerts *antidepressant-like effects*!

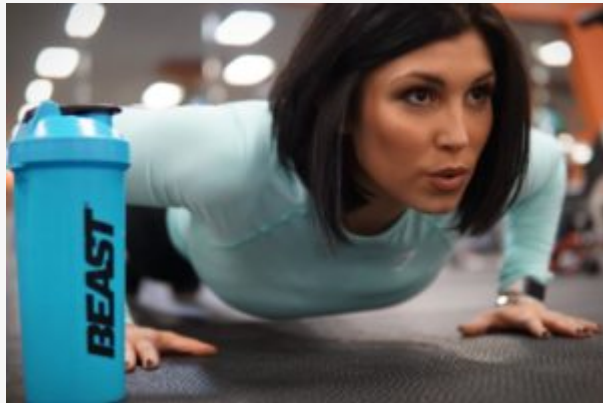
A potential mood-boosting ingredient definitely has a place within a strong nootropic supplement. That's precisely why we see synephrine here, despite it having other abilities outside of mood enhancement. 60mg of pure synephrine is on the higher end of the spectrum, and is something you should be aware of. This stuff can slightly increase your heart rate, so you may want to assess your tolerance of this particular ingredient prior to taking Neuro Beast!

- **Caffeine from *Coffee Arabica* (bean) – 200mg**

An ingredient that needs no introduction, **caffeine** should be familiar to all of us! This energy-boosting stimulant is used differently by all of us – before a workout, before a big game, or even after you roll out of bed in the morning! Put simply, it's one of the top energizing ingredients out there.[18] Yet, it offers some potential as a *nootropic*, too!

Caffeine is one of the most studied substances out there, and while most research out there is concerned with energy and wakefulness, there's other potential benefits that directly relate to the focus of this product. One study found that 200mg of caffeine *increased perceptual memory* at the cost of *worsening motor memory* compared to placebo.[19] You become more *awake* and *aware* when you use caffeine, and when working with everything else on the label, you can truly reach a level of elevated cognition!

## Synergistic relationship with synephrine



Now you can get your *brain* into Beast Mode!

The relationship between caffeine and synephrine is a quite popular one, and while effective, it's responsible for bringing a bit of heat to synephrine as a supplemented ingredient. The two *work synergistically together*, as both stimulants seriously wake you up and elevate your adrenaline levels.[16] For some, however, the combination of being amped up *in addition to a higher heart rate* is a little too much to handle. Again, while this duo can be extremely beneficial, for some it may be a bit too aggressive.

200mg of caffeine is the *perfect* amount to get you going without getting you too wired. It works *so well* with virtually everything else Neuro Beast delivers, and really takes this supplement to the next level!

- **Rhodiola Rosea (root) (1% Rosavins, 3% Salidroside) – 200mg**

*Rhodiola rosea* is an adaptogenic herb native to high mountainous areas of eastern Europe and Asia. Traditionally, it's been used to boost energy and cognition. The herb contains various bioactive compounds, but the two that seem most relevant to rhodiola's abilities are *rosavins* and *salidroside*. [20] Denoting the percentages of these two (as Neuro Beast does) is imperative, as the two seem to differ substantially. While rosavins bring some benefit, research has also had a tougher time really nailing down *exactly* what they do in isolation. Salidroside, on the other hand, are believed to be the star player in rhodiola. [21] That's good news, because in this case, we have more salidroside than rosavins!

**What's the difference, exactly?**



Rhodiola Rosea: Our favorite feel-good herb with some additional workout boosting properties

Differentiating between rosavins and salidroside is quite difficult, as most research out there is conducted with rhodiola as a *whole*, as opposed to one specific component of the herb. That being said, science has been able to offer some sort of clarity into what each component does. Rosavins are believed to have more interaction with *hormones*, while salidroside plays as an energy-boosting nootropic.[22]

We're going to cover what the entire herb does, but considering Beast and TGC pointed out the percentages of these two bioactives in the ingredient, we felt it was necessary to talk about it as well!

### **Fights fatigue, especially when it's mood-related**

A study published in 2000 tested rhodiola and its potency when given to stressed individuals. Given 170mg of rhodiola (3% salidroside) daily, the mental performance of these test subjects, who were physicians working night shifts, was assessed after 2 weeks. They found that rhodiola *significantly reduced fatigue and improved mental performance* in work-related tasks.[23]

Another study from 2012 wanted to assess the relationship between rhodiola and stress even more closely. Researchers gave 400mg of the herb daily to individuals experiencing either life or work-related stress. As soon as 3 days after the study began, they found that those receiving rhodiola *improved in regards to symptoms related to stress*, such as fatigue and social life.[24]



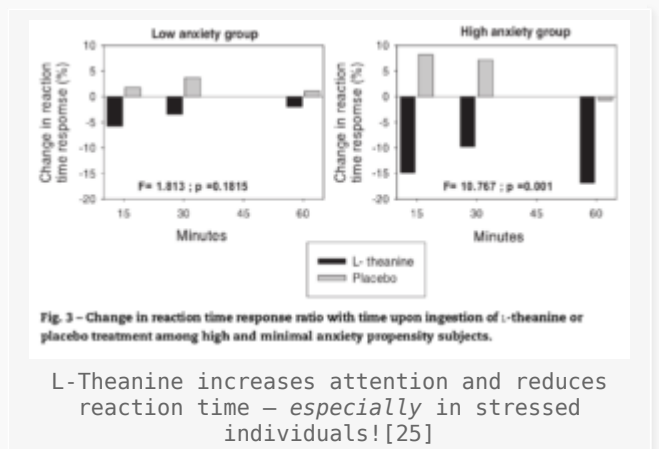
When we get stressed out, or are just feeling “off”, we no doubt have less desire to get things done. This level of fatigue can be dangerous, as the world we live in makes it all too easy to be consumed by stress and stress-related tiredness. To fend off this unmotivated nature, we thankfully have things like rhodiola. The herb makes you feel more energetic, more motivated, allowing you to get to work.

200mg of this stuff is *more than enough* to get these effects. You’re probably taking Neuro Beast before performing some sort of mental task, one where you need to zone in and get to work. Something like rhodiola is *crucial* for this product in allowing you to do so!

• **L-Theanine – 100mg**

We wouldn’t be truly talking about a caffeinated nootropic if we didn’t come across **theanine**! This amino acid, derived from green tea, has an incredible ability to *relax without sedating*. [25] Now, that may sound a little odd considering the purpose of this product, but don’t get it twisted – you should be happy theanine is here. It works *insanely well* with other stuff on this label, especially caffeine and *Bacopa*!

**Theanine and caffeine – focused energy?**



Look on the back of any focus-based product, and there’s a good chance that if you see caffeine, you’ll see theanine listed to. Commonly formulated in a 1:1 relationship, the two help you *increase focus, cognition, and attention*. [25]

In fact, theanine works this way with most stimulants, where it helps *take the edge off* of any boost in energy.[26] It keeps you from getting too wired, and helps that energy kick be put to *use*.

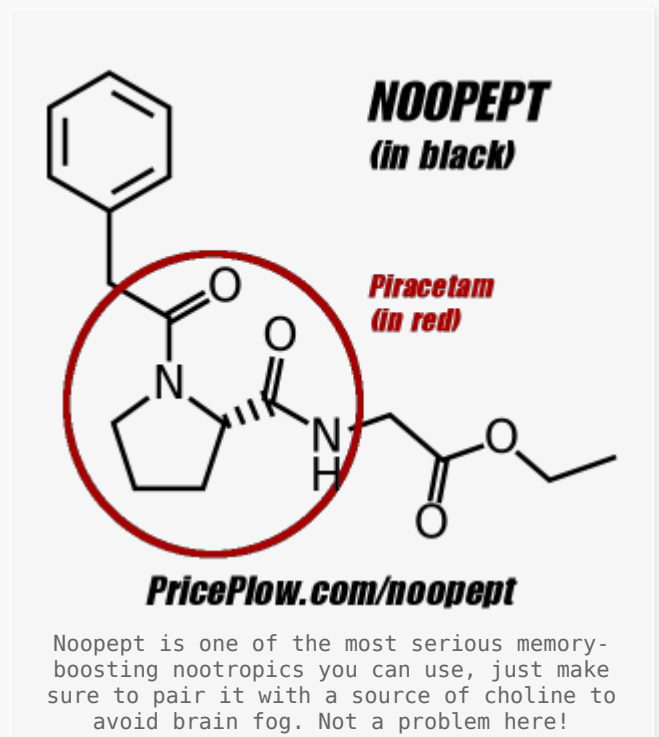
Think of it this way – pretend your body's a car. Caffeine's got its foot on the gas, but theanine has its hands on the wheel. It helps steer, allowing you to get from where you're at to where you want to be. In this case, it'll help you get from unmotivated and unfocused to *getting stuff done!*

### Theanine and *Bacopa*

Imagine having stronger mental capacity, alongside the ability to focus enough to put that brainpower to use. That's quite a scenario, yet it's not too far-fetched to what we have going on here. *Bacopa* can help grow dendrites, which helps improve overall cognition. Theanine, in this case, is going to help apply that cognition in a focused manner. Sounds like a *Beastly* duo to us, no?

With *Bacopa* being so underrated as a nootropic, we rarely see it in products. Thus, this pairing is even *more uncommon*. Leave it to The Guerilla Chemist to introduce it into our lives, powering up our brain in ways no other product can!

- **Noopept – 25mg**



**Noopept** is the much-needed abbreviated name for *N-phenylacetyl-L-polyglycine ethyl ester*, a nootropic peptide with extreme similarities to *piracetam*, a more popular nootropic.[27] However, as research continues to be published,

the case that noopept is *better* is building, and building fast.

A study conducted in 2009 tested the abilities of both brain-boosters in patients with emotional issues. Within the first week of the study, the scientists found that noopept *improved symptoms of anxiety, mood, and energy*.<sup>[28]</sup> In fact, the effects found were *so drastic* that they also *were far superior* to the effects, if any, caused by piracetam!

On top of the mood enhancement, noopept also has a case as a top-notch memory-enhancing agent. When administered to mice, noopept *improved memory and cognition*, both in initial and repeated testing.<sup>[29]</sup>

The clinical dosage of this powerful ingredient typically ranges between 10 and 30mg. Neuro Beast packs a full 25mg, which is towards the higher end of the spectrum. That's in no way a bad thing – it just speaks to how *seriously strong* this entire formula is!

#### • **Vinpocetine – 10mg**

**Vinpocetine** is an ingredient we actually don't see too often, not due to any degree of undervaluation, but because of its checkered past. The compound has been around for almost 60 years, and began as a prescription drug. However, it's actually now banned in various countries due to user complaints. In America, it's currently under review by the FDA, but still legal to sell and use. It's touted as memory-boosting, cognitive-protecting ingredient, albeit with a small amount of research to back it up. Here's what's out there:



From Beast's Instagram: "For the past 13 years Super Test has set the standard. And in that time we've tweaked the formula to assure it continued to be the most powerful legal Test Booster available." And they certainly seemed to do that, getting Mike's total testosterone to nearly 800!

- A study from 2009 found that a drink containing vinpocetine *improved reaction time* in male athletes, compared to placebo.[30]
- A 40mg dose *significantly improved reaction time and improved working memory* in healthy female volunteer subjects.[31]
- Due to its ability to *increase blood flow*, a 30mg dose showed capable of *improving symptoms related to cognitive decline*.[32]

Again, we wish there was more research out there supporting vinpocetine. However, we've got to go based off of what we have, and considering that this stuff is banned elsewhere, we must say we're a little weary about it here. At only 10mg, it's a minor inclusion, so TGC must truly believe in both its potential and safety if its on this label. He's never let us down before, so we'll trust him on this one!

- **BioPerine<sup>®</sup> Black Pepper (*Piper nigrum*) Extract (fruit) (95% Piperine) – 10mg**

BioPerine<sup>®</sup> is a patented form of **black pepper extract**, an ingredient that tends to find its way onto virtually every supplement these days. For good reason, too – the *piperine* black pepper extract *enhances absorption and bioavailability of supplemented ingredients*,[33] meaning it helps you fully absorb everything on a label.



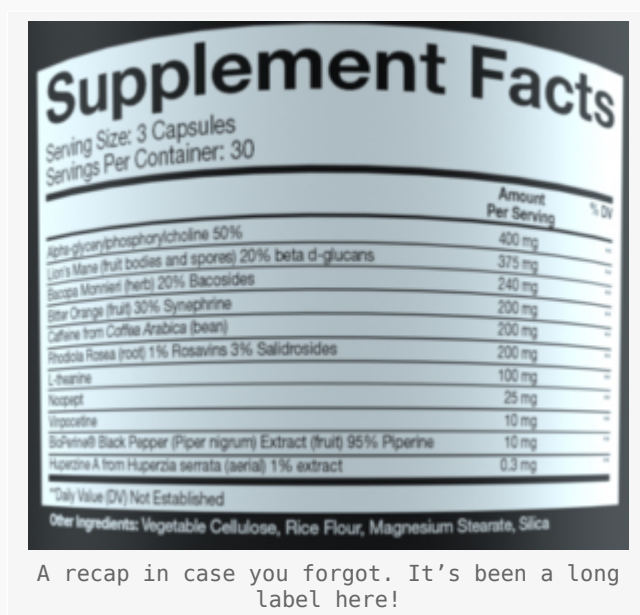
But even more importantly for Neuro Beast, **piperine is a MAO inhibitor**,[34,35] meaning it helps keep dopamine receptors active for longer periods of time. This is because MAO enzymes speed up the oxidation of monoamines, which are many of our stimulatory and feel-good neurotransmitters. Less active MAO circulating means a more excited brain, which we enjoy for short periods of time when used reasonably like the dosage we have here.

What good is it to take a supplement like this one and *not* yield its full potential? An absorption agent like this one makes sure this doesn't happen.

- **Huperzine A from *Huperzia serrata* (aerial) (1% extract) – 0.3mg**

We talked a bit earlier about one of the auxiliary effects of Lion's Mane – *inhibiting acetylcholinesterase*. Well, if that defense against choline breakdown wasn't enough for you, TGC has doubled down on it!

**Huperzine A** may just be the best *inhibitor of acetylcholinesterase* there is.[36-38] It's shown, time and time again, to be incredibly proficient at keeping choline around and working. We've already went into detail about what choline does inside the body, specifically within the brain, so you should understand the value of something like huperzine A. Although the amount may seem low, it's actually *all you need* to fend off choline breakdown!



How's *that* for three capsules?!

## The Guerrilla Chemist Strikes Again!

We can't leave without talking a bit more about the guy behind the formula!

TGC is one of the *biggest names* in the supplement industry. However, he didn't always go by *The Guerilla Chemist*. That title was instead earned through hard work and results! He initially began his career after graduating from the University of Central Florida with a Master's Degree in Organic and Biochemistry. After working with multiple different companies, perfecting countless formulas, his popularity began to blossom. Everyone was looking to work with The Guerilla Chemist, and for good reason too – this is a *real* chemist who knew what he was doing!

## Our Interview with TGC

Don't just take our word for it, hear it from himself! We've recently



interviewed TGC, who went into deep detail on just how exciting his partnership with Beast is!

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Although he's become the CEO of his *own* supplement company, he's yet to forget his roots. TGC still embarks on partnerships, likely due to his true passion and desire for cooking up the best formulas on the market. In continuing to collaborate and innovate, we have no doubt he'll one day accomplish this. What makes us so confident? His past work speaks for itself, sure, but his collaborations with Beast have taken things to the next level.

## Conclusion – *Beastly* neuro power, thanks to The Guerilla Chemist!



This is a fantastic partnership, and Super Test Max was only the *first* product! Neuro Beast may even top it!

Let's be honest for a second – most of us, if not all of us, would like a bit more brain power than we currently have. Wouldn't it be nice to grind out 3 hours worth of work in only 2, or an entire writing assignment in merely an hour? No matter what your daily life entails, being able to *zone in* and *work*, at a higher level, is something we surely all wouldn't mind!

In Beast Neuro, The Guerilla Chemist and Beast are delivering everything you could ask for in a *comprehensive, brain-boosting, focus-enhancing* nootropic product. It's loaded with the *right stuff*, at the *right doses*, to kick your neural waves up a notch. It also has stuff that keeps the brain healthy, and promotes longevity. Not many nootropics can say that!

This team-up between TGC and Beast continues to impress. When you put some of the top minds in the industry together, products like this, once thought to be a

pipedream, become a reality. Beast Neuro is yet another win for the partnership, and makes us even more excited for what's to come!

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