

# Myokem mTOR Pro – Time-Released BCAA Supplement!

written by Mike Roberto | January 18, 2015



Myokem seemingly came out of nowhere in 2014, turning the industry on its head with science-based formulas and giving customers exactly what they wanted.

It looks like 2015's going to be no different: **Myokem mTOR Pro** has been announced.

This is an amino acid supplement with an industry-first (and exclusive) *time-released leucine* named *ActiveTR*.

News is slowly coming out, so you can sign up for updates below or head over to our Myokem page and click *monitor this brand*.

## Myokem mTOR Pro – Deals and Price Drop Alerts

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## The basics behind mTOR Pro



The mTOR Pro label is available below and we've also got more information on the ActiveTR time-released leucine complex!

What's even better is that Myokem has made mTOR an open-label product, so we can see the exact amount of each amino acid that we can expect in each of its 30 servings.

Here's the intro information on the ingredients and dosing:

- There will be a total of **8g BCAAs** per serving. Well above the 5g average.
- 3g is **ActiveTR**, a new industry-first **time-released leucine** discussed below.
- *Total* serving weight is **14.1g**, so there will be a lot of value-adds.
- **30 servings** per tub, an industry standard.

*Havana Sunrise* is a new flavor – it's typically a cocktail mix of grenadine, orange and/or strawberry, all mixed in with coconut-flavored rum. That could give you some guesses.

## mTOR Pro Ingredients

Supplement Facts		
Serving Size: 1 Scoop (14 grams)		
Servings Per Container: 30		
Amount Per Serving		%DV
<b>Calories</b>	0	
<b>Total Fat</b>	0 g	0%
Sodium (as Sodium Chloride)	30 mg	1%
Potassium (as Potassium Gluconate)	25 mg	1%
<b>Total Carbohydrate</b>	0 g	0%
Thiamin (Vitamin B-1) (as Thiamin HCl)	10 mg	667%
Vitamin B-6 (as Pyridoxine HCl)	10 mg	500%
Vitamin B-12 (as Methylcobalamin)	150 mcg	2500%
<b>mTOR Activating Recovery Matrix</b>	10.5 g	**
Instantized BCAA (2:1:1)	5.0 g	**
L-Leucine	2.5 g	**
L-Isoleucine	1.25 g	**
L-Valine	1.25 g	**
Time Release L-Leucine (as ActiveTR™)	3.0 g	**
L-Lysine	938 mg	**
L-Threonine	685 mg	**
L-Phenylalanine	310 mg	**
L-Tyrosine	292 mg	**
L-Histidine	175 mg	**
L-Methionine	100 mg	**
<b>Active Hydration Matrix</b>	1.225 g	**
Taurine (1.0 g), Potassium gluconate (150 mg), Sodium chloride (75 mg)		
<b>AstraGin® (Astragalus Membraneus &amp; Panax Notoginseng)</b>	50 mg	**
* Percent Daily Values (%DV) are based on a 2000 calorie diet. ** Percent Daily Value (%DV) not established		

Myokem mTOR Pro Ingredients

The ingredient label is available to the right, and our full analysis is below.

Click [here](#) to skip to our ActiveTR section, if that's what you're most interested in.

### • Instantized 2:1:1 BCAAs (5g)

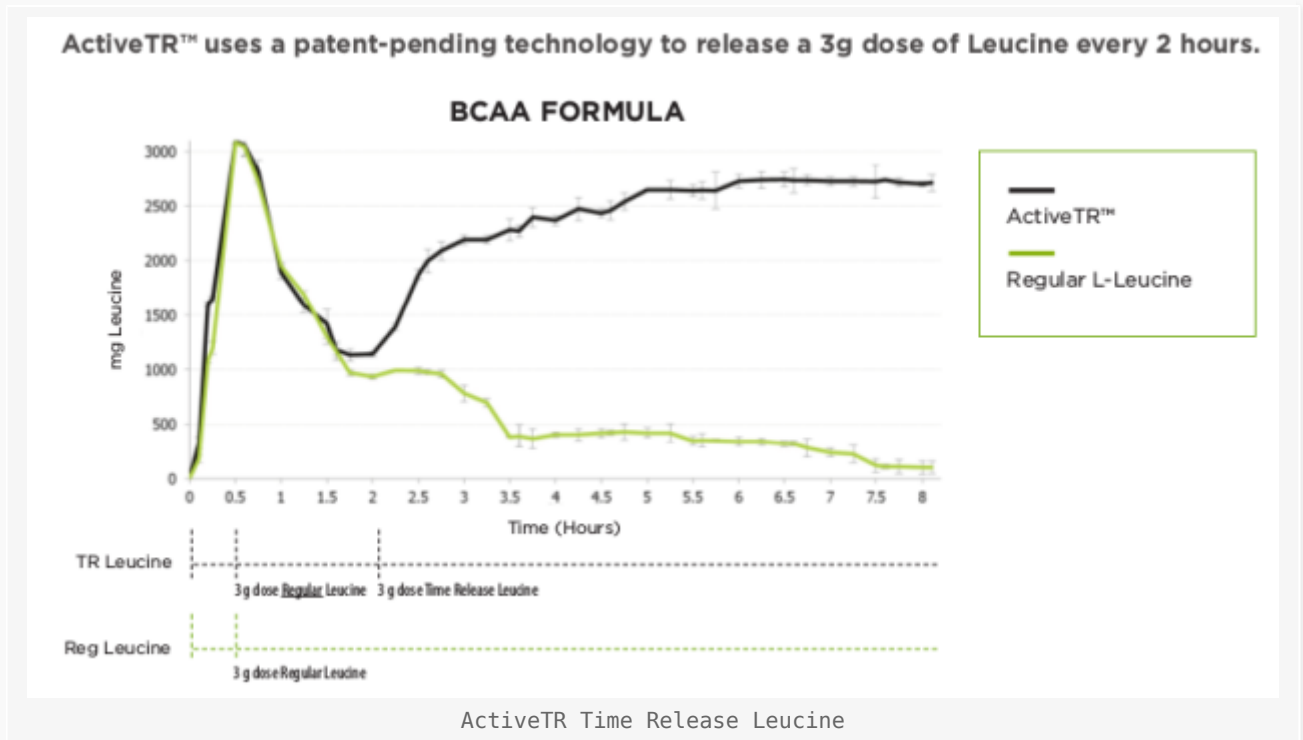
Of course, the BCAAs are the emphasis here with a standard 2:1:1 ratio. Note that they're in *addition* to the special time-released ActiveTR leucine, so we'll also be getting a 2.5g dose of *standard* L-Leucine per serving along with the expected 1.25g each of L-Isoleucine and L-Valine.

### • Time Release L-Leucine (as ActiveTR)

The ActiveTR time-released formula is the prime point of interest here, however, as there's literally nothing else like it on the market. We'll go into more detail dissecting what Myokem's graphs mean below, but the short version on it is that it's a 3g dose of leucine that's going to be staggered to be released every two hours over a total period of eight hours.

### What is ActiveTR?

You can see it in action in the black line below, contrasted with normal L-leucine in the yellow/green line:



The above image was from ActiveTR datasheet, and is updated from our original posting. It was provided by **Compound Solutions**, the company selling it. They're best known for the top-selling form of beta alanine, *CarnoSyn*, which you may likely have used in the past – so these guys are not rookies.

It's a bit confusing to understand, but in this chart, the 3g regular dose of L-leucine and the 3g dose of time-released leucine were ingested *at the same time*. After two hours, the time-released leucine “wakes up” and gets to work.

The problem is that we're not sure what's truly being measured (plasma leucine levels in a test subject? Leucine being dispersed in water or some other fluid?)

We're just not sure – but if the data holds up in human plasma, this could have *significant* repercussions.

### Who wants this and why?

Ideally, it'll work great for anyone who does any form of fasting, sleeps for longer than 5 hours at a time, does extreme endurance training, or doesn't always get meals as frequently as they'd like.

That covers a lot of us in one way or another. Put simply, if you're already using free-form BCAAs and Leucine, why *wouldn't* you want it to be time-released? The longer the better as far as our goals are concerned!

So for everyone else who just uses BCAAs as normal intra workout supplements (often when training on an empty stomach – “fasted training”), you'll just have to wait and see if this has any extra effect on you.

## Why leucine?



We're happy that it's *leucine* that's been made into a time-released ingredient, as leucine is known as the "anabolic trigger"[2], and most BCAA benefits are credited to leucine.

Leucine activates the **mTOR Pathway**[3], which stands for *Mammalian Target of Rapamycin* and is a potent anabolic pathway (ie it helps you build muscle). Specifically, leucine activates one of the two mTOR complexes, *mTORc1*.

Hence the name of the product, **mTOR Pro**...

By having leucine around longer in the body, this prevents situations of atrophy and catabolism, in which the muscles get broken down as your body requests amino acids and has no other place to find them except your muscle tissue.[4] We like to keep amino acid catabolism as low as possible by having high-protein diets and using supplementation to cover any gaps.

We'll see if Compound Solutions would like to provide extra information.

- **Remaining Amino Acids**

How about the remaining aminos? We're looking at



- 938mg L-Lysine,
- 685mg L-Threonine,
- 310mg L-Phenylalanine,
- 292mg L-Tyrosine,
- 175mg L-Histidine, and
- 100mg L-Methionine.

Most of these are *essential* dietary aminos (those that you can only get through food or supplements), with only tyrosine being *conditionally essential*.

### Why?

Your daily dietary needs for all of these aminos varies greatly with body weight and the intensity of your workouts, but a very rough estimate is about 10 to 16mg per kilo of body weight for each. So clearly a serving won't work as a total protein replacement (it's also completely lacking in tryptophan), but the emphasis here is on BCAA supplementation for muscle growth and repair, and these amounts are more than adequate.[8,9,10]

So what is the tyrosine for? Well, tyrosine is important to the body, and is conditionally essential as it's made from phenylalanine. For workout purposes, it's generally included to combat stress, aid in recuperation and as a cognitive enhancer.[5]

### • Hydration Matrix

The other main points of interest here are the Active Hydration Matrix and AstraGin.

The Hydration Matrix contains 1g of taurine, 150mg of potassium gluconate and 75mg of sodium chloride.

Taurine hasn't really been conclusively demonstrated to aid in exercise performance, but it *does* play a key role in balancing the levels of water and mineral salts in the body.[6]

### It's got electrolytes

Potassium gluconate and sodium chloride are electrolytes.

### • AstraGin (50mg)

AstraGin is a patented combination of *astragalus* and *Panax Notoginseng* that is billed by the manufacturers as aiding in absorption of amino acids, vitamins and glucosamine.[7]

## • Additional B-Vitamins

Other than that, all that's left is B-vitamin content: Thiamin HCl (B1), Pyridoxine HCl (B6) and Methylcobalamin (B12). The relative simplicity of the label is a good thing, as it means the generous total 14.1g weight per tub is full of useful aminos and not cut with any junk filler!

The one remaining point of mystery is the new "Havana Sunrise" flavor, which Myokem hasn't expanded on in any of their pre-release materials as of yet. We're still expecting it to be based on the cocktail of the same name, which is a mix of grenadine and orange or strawberry with coconut rum. We may have to wait until the actual product launch to learn anything new about it, however.

In the meantime, be sure to sign up for updates on Myokem products and we'll update this page as hear more.

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## Related Links

- Nitramine is very high on our Best Pre Workout Supplement list, and you can see Brandon's Nitramine review here.
- Pyroxamine is similarly very high on our Best Fat Burner list (see the Top 10!)

## References

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