

HumaPro – Protein Synthesis Perfected by ALRI!

written by Mike Roberto | October 28, 2015



Whey protein has long been the golden boy of the fitness world. It's one of the most bioavailable proteins in the body and is widely recommended for maximizing gains in the post workout window.

While whey certainly deserves its place in your supplement cabinet, sometimes you don't feel like choking down another shake or worse, you don't have the caloric budget for the calories.

The whole point to taking in whey – and protein in general – is for the amino acids that flood the bloodstream to kick start muscle protein synthesis. But what if there was an option that gave you all the essential amino acids needed *in the exact ratio* and made readily available for the human body – all at the cost of .02 calories?

HumaPro from **ALR Industries** was developed to help you sustain and increase your

protein synthesis all without putting a considerable dent in your caloric allowance.

We'll reveal just how they did below, but first take a second to check the best deal and sign up for alerts from PriceFlow:

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HumaPro Ingredients

So you may be wondering just how HumaPro delivers all the benefits of a protein supplement without the significantly impacting your waistline?

Simple, they utilize pharmaceutical grade Ajinomoto Amino Acids in the exact amounts required by the human body to stimulate muscle protein synthesis with no metabolic waste or conversion to blood sugar like you'll experience with typical protein supplements.

- **Particle-sized Essential Amino Acid Immediate-Release Proprietary Matrix (5g)**

While whey protein, chicken, beef, etc. contain all the essential amino acids (EAAs) needed to build slabs of muscle, they aren't structured in the optimal ratio needed by the body to efficiently synthesize protein. This results in lots of wasted aminos that get either converted to nitrogenous waste or converted to glucose. Neither of these scenarios is what you want.

Don't bottleneck your gains by missing an essential amino!

SUPPLEMENT FACTS

Serving Size: One (1) Scoop (7.42 Grams Per Serving)
Servings Per Container: Ninety (90)

	Amt Per Serving	%DV*
Vitamin & Mineral NNU Co-Factors		
Vitamin B-1	0.7 mg	50%
Vitamin B-3	9.0 mg	50%
Vitamin B-6	1.0 mg	50%
Vitamin B-12	1.5 mcg	75%
Magnesium Citrate	87.5 mg	50%
Calcium Carbonate	175 mg	17.5%
Zinc Glucanate	3.75 mg	25%

Particle-Sized Essential Amino Acid IR (Immediate Release)

Proprietary Matrix:	5.0 g	**
L-Leucine, L-Valine, L-Isoleucine, L-Lysine, L-Threonine, L-Phenylalanine, L-Methionine, L-Tryptophan, L-Histidine, L-Cysteine, L-Leucine Malate		

Extended Time Release Proprietary Anti-Catabolic

And Insulogenic Matrix:	250 mg	**
Bitter Melon Extract, Green Coffee Bean Extract (caffeine free)		

*Percent Daily Values Based On 2,000 Calorie Diet.

**Daily Value Not Established

Other Ingredients: Sucralose, Malic Acid, Acesulfame Potassium, Maltodextrin, Gum Acacia, Natural Flavor, Silicon Dioxide (As Anti-Caking Agent)

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

The HumaPro Ingredients. The amino acid ratios are there for a reason, as you'll see!

ALR claims that HumaPro contains the EAAs needed by the body in the exact ratio so *nothing* gets wasted.

Each scoop of HumaPro gives you the industry standard 5g dose of all the EAAs, including: Leucine, Valine, Isoleucine, Lysine, Phenylalanine, Threonine, Methionine, Tryptophan, which is then followed by the “semi-conditional” amino acids L-Tyrosine, Cystine and Leucine Malate, which is discussed lower.

Regardless of the exact ratios, studies have shown that EAA supplementation not only helps synthesize muscle, it also helps delay soreness and reduce muscular damage during exercise.[1,2,3] This not only helps you recover faster but allows you to workout for longer.

The human ratio

The question for HumaPro is whether it can achieve a ratio that doesn't leave you with any “bottlenecks” in your protein synthesis process. The goal is that the body has exactly what it needs, right there and ready to go, and doesn't need to do any extra work to make up for (or wait for) missing or incomplete aminos.

The Rose Experiments

ALR used a series of experiments by William Cunnning Rose,[11,12] who fed healthy male graduate students with an “elemental diet” and varied the ratios of individual amino acids, and then measured nitrogen balance. A positive nitrogen balance means anabolism (muscle building state!) but negative means catabolism (muscle breakdown!).

Much of the research went into *histidine*, which can be considered “semi-

essential”, as well as cysteine and tyrosine. Histidine *can* be manufactured by the body, but it would come from other EAAs, and makes sense to include it in an amino acid supplement so that your body doesn’t need to spend its other EAAs when it needs some histidine.[13]

The World Health Organization Recommendations

The above studies, along with *several* others, were used by the World Health Organization (WHO) to make their *Protein and amino acid requirements in human nutrition*, a massive 265 page guide on the amino acid requirements for humans of all ages.[14]

On page 245, you’ll see the table below:

Amino Acid(s)	mg per kg body weight
Histidine	10
Isoleucine	20
Leucine	39
Lysine	30
Methionine + Cysteine	10.4 + 4.1 (15 Total)
Phenylalanine + Tyrosine	25 (total)
Threonine	15
Tryptophan	4
Valine	27

Unsurprisingly, this is extremely close to HumaPro’s label listing, except the BCAAs have been bumped up, which is appreciated for their anabolic potential.

Why L-Leucine *Malate*

At the end of the proprietary blend, you’ll see some extra leucine in the form of leucine *malate*. Being the most anabolic amino acid, and the one humans require the most of as shown by the chart above, we’re always happy to have more leucine. By why the malate?

We asked ALR, who answered,

“The addition of an ester attachment allows us to be sure there is the longest anabolic period possible, or, at least there is a reserve the body will use during

increased nitrogen utilization so no EAA go to waste.”

– ALR Industries R&D

In short, this is a way to time-delay some of the leucine to make absolutely certain you don't run out of it early. If the "bottleneck theory" is true, you definitely don't want to run low on this most critical BCAA.



ALR has one of the coolest Facebook covers.

- **Extended Time Release Proprietary Anti-Catabolic & Insulinogenic Matrix (250mg)**

This area contains the less talked-about side of HumaPro, but it's not without its benefits, especially for dieters:

- **Bitter Melon Extract**



Be sure not to miss @brizzyfit in Miami when demoing ALR Supplements!

Also known as *Momordica charantia*, bitter melon extract has a long history of use in Asian and African medicine for healing several ailments including ulcers, pneumonia, fever, and jaundice.[4] More recently, it's been investigated for its effectiveness in treating diabetes.

Clinical studies demonstrate that bitter melon may suppress inflammation in fat (adipose) tissue.[5] That's not all though, bitter melon extract also increases serum protein levels and glucose use in the body while reducing glycogenesis in the liver.[6] More importantly, it enhances glucose utilization in the body, increases serum protein levels, and reduces glycogenesis in the liver.

We've never seen this in an amino acid supplement, so it's a unique add-on.

- **Green Coffee Bean Extract**

Green Coffee Bean Extract (GCBE) is one of those ingredients that makes us cringe a bit when we see it on the label. It initially made waves in the industry as the next "it" ingredient in terms of boosting metabolism and aiding weight loss.

However, the study that backed all of these supplements was later redacted and Dr. Oz & co. came under a huge amount of backlash.[7]

GCBE isn't completely useless though, it does help lower blood pressure[8] and may still inhibit the growth of new fat cells.[9,10]

Given that the rest of this formula is quite novel, and that the HumaPro flavors we've tried taste so good, we're fine with having this ingredient here. It's not *bad*, after all – it's simply not as great as it was once hyped up to be.

Flavors Available

HumaPro steers clear of the typical amino acid flavors and opts for flavors that you're more likely to find in a BCAA supplement or pre workout:



ALR recently rebranded in the Fall of 2015 – Here's the old vs. the new bottles!

- **Apple Cider**
- **Exotic Peach Mango**
- **Fresh Cut Pineapple**
- **Mandarin Orange**
- **Sour Grape**
- **Strawberry Kiwi**

As mentioned above, so far we've had Mandarin Orange and Strawberry Kiwi, and they were both fantastic and original. Mandarin Orange is a "lighter" orange, and strawberry kiwi is exactly what you'd expect. We love it when we see creative flavors!

Wrap Up

HumaPro contains everything you need to keep the gains (or losses!) coming, and coming *efficiently*. It can definitely be used whether you're bulking, cutting, or recomping, although it does seem to be marketed a bit more towards the dieters. Not only will you be retaining more muscle while keeping calories in check, you'll also exhibit less soreness and recover better to get back in the weight room the next day.

If you haven't been getting the results out of your protein or amino acid blend that you've been wanting, or games have come to a halt and you're not sure what to do next, pop open a bottle of HumaPro. It may just be the answer you've been looking for to finally break through that dieting plateau and satisfy your sweet tooth all at once.

And best of all, if you're not sure, you can always check the free samples page and taste it for yourself!

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