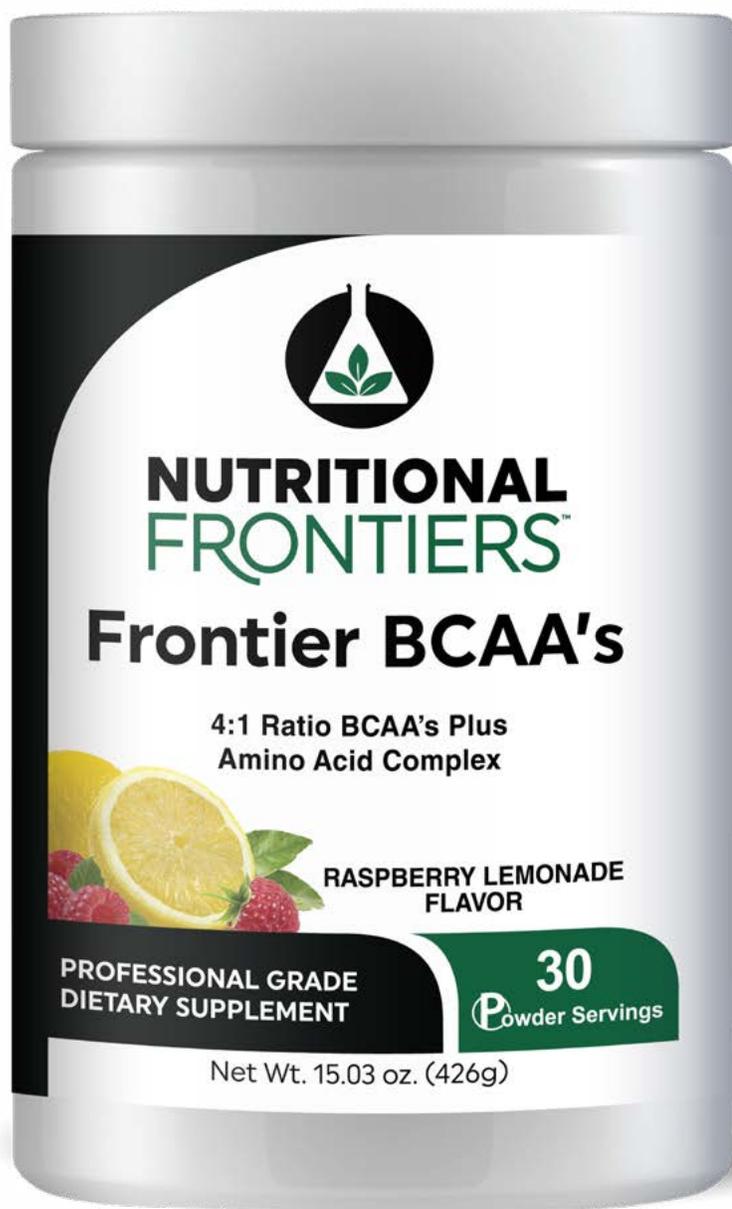


Frontier BCAAs

4:1 Ratio BCAA's Plus Amino Acid Complex



Muscle Recovery

4:1:1 Ratio of BCAAs

Protein Metabolism

NutritionalFrontiers.com
(412) 922-2566



Frontier BCAAs

Available in 30 Powdered Serving Bottles

Frontier BCAAs represents the most comprehensive postworkout/recovery product on the market today.* In addition to a 4:1:1 ratio of BCAAs, this formula boasts 4 g of glutamine, 1 g of L-Citrulline, electrolytes, and a combination amino acid complex all in a great tasting powdered drink mix.

BCAAs (Leucine, Isoleucine, and Valine) are considered "essential" because humans cannot survive unless we obtain them through diet. "Branched chain" refers to its chemical structure. BCAAs, in particular leucine, have the potential to produce anabolic effects on protein metabolism by increasing the rate of protein synthesis and simultaneously decreasing the rate of protein degradation in skeletal muscle tissue. For exercising under certain extreme conditions, studies show BCAA may help prevent muscle loss at high altitudes and prolong endurance during heat stress (Schena, 1992. Mittleman, 1998)

The ratio of BCAAs can vary from formula to formula and in this case the emphasis was placed on leucine primarily due to its role in providing metabolic support for insulin sensitivity.*

Many studies have indicated that exercise-induced blood ammonia elevation and blood lactate increments have been supported by L-citrulline supplementation. Citrulline may support the detoxification of ammonia via the urea cycle and also support healthy levels of additional glycolysis needed during exercise.* Furthermore, citrulline may help reduce post-exertional muscle soreness (Rhim 2020) and a study in female athletes showed improved resistance-exercise performance (Glenn 2017).

L-Glutamine is the most abundant amino acid in plasma and a major carrier of nitrogen. Since glutamine exhibits an impact on nitrogen balance, it could be considered vital to building muscle mass and muscle repair.* It is a mainstay in many workout products, specifically because of the role this amino acid plays in muscle recovery. Specifically, glutamine may reduce soreness after exercise and promote faster recovery (Lagault, 2015) and attenuate exercise-induced muscle damage (Cordova-Martinez, 2021).

Frontier BCAAs Powder also contains an Amino Acid Complex featuring L-Threonine, L-Cysteine HCl, L-Histidine HCl, L-Lysine HCl, L-Phenylalanine, L-Methionine, L-Tyrosine, and L-Tryptophan. Protein is comprised of amino acid building blocks, which the body uses in a variety of ways for maintenance, growth, and repair of various tissues. Some of these amino acids can only be obtained from the diet ("essential amino acids") and others can be made by the body itself. Some amino acids like tyrosine and tryptophan are utilized in the body to form the basis of neurotransmitters and hormones.

SUPPLEMENT FACTS

Available Bottle Size: 426g

Serving Size: 1 Scoop (14.2g)

Servings Per Container: 30

Amount Per Serving

Total Carbohydrates	1 g
Vitamin C (from Acerola Cherry Extract)	118 mg
Sodium (as Sodium Citrate Dihydrate)	60 mg
Potassium (as Potassium Chloride)	200 mg
Branched Chain Amino Acid Blend	4,500 mg
L-Leucine	3,000 mg
L-Isoleucine	750 mg
L-Valine	750 mg
Amino Acid Complex	
L-Glutamine	4,000 mg
L-Citrulline Malate 2:1	1,000 mg
Acerola Cherry Extract	655 mg
L-Threonine	500 mg
L-Cysteine HCL	250 mg
L-Histidine HCl	250 mg
L-Lysine HCL	250 mg
L-Phenylalanine	125 mg
L-Methionine	100 mg
L-Tyrosine	50 mg
L-Tryptophan	25 mg

Other ingredients:

Natural Flavoring, Citric Acid, Stevia, Red Beet Powder (For Color)

Produced in a facility that also processes soy, fish, shellfish, milk, peanuts, tree nuts, wheat, and eggs.

Suggested Use: As a dietary supplement, mix one scoop (12.5 g) with cold water or juice once daily or as directed by your healthcare provider.

Warning: Consult your healthcare practitioner before taking this product if you are pregnant, nursing, planning to become pregnant, if you have heart or liver disease, or if you are taking blood pressure medications or antidepressants. Do not take this product if you are taking medications for erectile dysfunction.



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