

PRODUCT INFORMATION

Macro Pro 7

By Dane Ivcevic
Gen-Tec Resident Biochemist

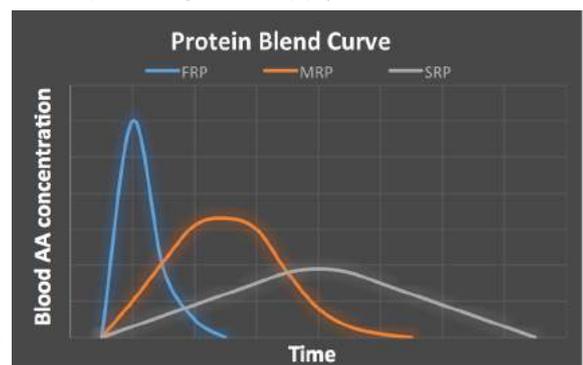
Protein blends are increasing in popularity, all proposing a unique edge over singular proteins. However, the edge a protein blend provides is dependent on the combination and quality of ingredients used.

Macro Pro 7 contains a unique blend of proteins with the aim to extend the anabolic window over an extended period of time by using proteins that offer staggered peak periods, thus resulting in a prolonged effect of anabolism and nitrogen retention. The following proteins have been combined to offer this extended period of anabolism.

Slow release proteins	<ul style="list-style-type: none"> ○ Calcium caseinate ○ Milk protein isolate 	<ul style="list-style-type: none"> ○ Casein proteins are potent inhibitors of muscle breakdown
Medium release proteins	<ul style="list-style-type: none"> ○ Egg albumen ○ Organic wholegrain brown rice protein ○ Whey protein concentrate 	<ul style="list-style-type: none"> ○ Egg albumen suppresses appetite and is also high in EEA with high digestibility.
Fast release proteins	<ul style="list-style-type: none"> ○ Whey protein isolate ○ Hydrolysed whey protein isolate 	<ul style="list-style-type: none"> ○ Pre-digested whey proteins exhibit high bioavailability and rapid absorption

After the ingestion of this protein blend, the fast releasing proteins, particularly the hydrolysed whey protein would rapidly absorb through the intestinal lumen and into the blood, peaking within the hour (1, 2). This is shortly followed by a gradual rise in slow releasing proteins while the medium releasing proteins provide a second wave of peak blood amino acids levels. After 3-4 hours the slow releasing proteins will begin to peak providing a third peak wave in blood amino acid levels which will then gradually subside a few hours later providing a net supply of amino acids over a 5-7-hour period, therefore extending a window of anabolism by inhibiting muscle protein breakdown (muscle nitrogen retention) and supporting muscle protein synthesis (MPS) (3-6).

In addition to the unique digestion rates of these proteins, each offers its very own biological "speciality" based on its unique nutrient profile, and in combination they offer a suite of biological specialities that support recovery and muscle protection. An example is how whey protein is an excellent stimulator of postprandial MPS (anabolic peak) whereas casein protein isn't so good at maximising MPS but is an expert at preventing muscle protein breakdown. Thus, they offer what the other doesn't exhibit to complement their biological specialities (5). An example of their unique specialities is illustrated below.



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Protein	BCAA levels	EAA profile	↑ MPS	↓ Muscle breakdown	Antioxidant levels	Immune support	Total MacroPro 7
Egg	☆☆	☆☆☆☆	☆☆	☆☆☆☆	☆☆	☆☆	☆☆☆☆
Whey	☆☆☆☆	☆☆☆☆	☆☆☆☆	☆☆	☆☆	☆☆☆☆	☆☆☆☆
Casein	☆☆☆☆	☆☆☆☆	☆☆	☆☆☆☆	☆☆	☆☆☆☆	☆☆☆☆
Rice*	☆☆	☆☆	☆☆	☆☆	☆☆☆☆	☆☆	☆☆☆☆

*In addition with added super greens

Furthermore, Macro Pro 7 contains compounds to assist with immunity and inflammation after intense exercise. These include bromelain and colostrum, which provide inflammatory support from delayed onset muscle soreness and digestive support.

Benefits to Colostrum

- Decreases upper respiratory tract infection by 50% more than placebo (7)
- Supports recovery from intense anaerobic exercise (8, 9)
- Supports gastrointestinal integrity and immunity (10-12)

Benefits to Bromelain

- Reduces the severity of delayed onset muscle soreness (13-15)
- Acts in an anti-inflammatory manner by regulating inflammatory immune pathways (16-18)
- Aids digestion enzymatically by digesting proteins (19)

Lastly, this product also contains significantly less lactose (milk sugar) than regular products that contain powerful dairy derived proteins by the addition of lactase (digestive enzyme). For those who don't tolerate lactose well or are lactose intolerant, low lactose consumption is better than complete lactose elimination for the majority of sufferers. The reason is that small amounts of lactose build up tolerance by supporting colonies of lactose digesting bacteria and initiating cellular lactase production, whereas total elimination results in a decline of lactose digesting bacterial colonies as well as redundant lactase producing cells.

In summary, the combination of ingredients within Macro Pro 7 work towards providing a sustained released protein whilst also providing compounds that aid digestion, enhance immunity and support recovery from intense training. The addition of lactase along with bromelain supports the digestive system to tolerate and digest lactose during the absorption of this protein blend.

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