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Take MAP, Be a Champion™

AMINO ACID MASTER MAP PATTERN ®

If your goals are to:

- *Optimize Muscle Endurance*
- *Optimize Muscle Mass*
- *Optimize Muscle Strength*
- *Optimize Body Protein Synthesis*
- *Have a faster and more effective muscle recovery*

then MAP™ may be your answer

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International Nutrition Research Center, Inc.
Coral Gables, Florida USA

MAP™ can substitute dietary proteins in a safer and nutritionally more efficient way

DESCRIPTION

MAP™ is a dietary protein substitute that provides the MAP Master Amino Acid Pattern® (U.S. Patent No. 5,132,113) a unique pattern of essential amino acids in a highly purified, free, crystalline form. After oral ingestion, MAP™ is rapidly utilized. MAP™ does not require the aid of peptidases and therefore, it is absorbed, within 23 minutes, through the first 100 cm of functional small intestine. MAP™ does not provide any fecal residue. MAP™ is amphoteric. MAP™ is supplied in tablets of 1,000 mg for oral administration. Each tablet of MAP™ contains only the active ingredient MAP™. MAP™ contains no inactive ingredients.

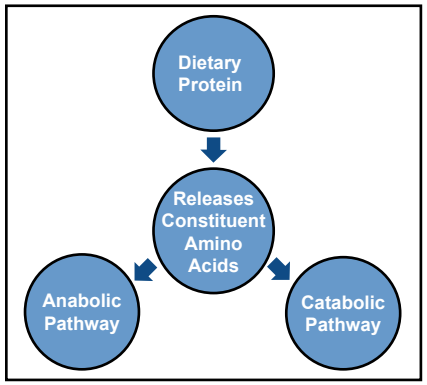
COMPOSITION

MAP™ contains the MAP Master Amino Acid Pattern® (U.S. Patent No. 5,132,113) a unique pattern of essential amino acids in a highly purified, free, crystalline form.

CLINICAL STUDIES

The results of comparative, double-blind, triple and quintuple crossover Net Nitrogen Utilization (NNU) clinical studies have shown that the subjects, while taking MAP™, as a dietary proteins substitute, achieved a body's 99% NNU. This means that 99% of MAP's constituent amino acids followed the anabolic pathway, thus acting as precursor of body's protein synthesis (BPS). By comparison, dietary proteins only provide between 16 to 48% NNU. Hence, MAP™ is more nutritious than dietary proteins. This has been confirmed by the fact that during the studies, each subject body's nitrogen balance was maintained in equilibrium by taking MAP™, as a sole and total substitute of dietary proteins, in a dosage of only 400 mg/kg/day, which provided less than 2 kcal/day (1 g MAP™ = 0.04 kcal). The studies results have also shown that 1% of MAP's constituent amino acids followed the catabolic pathway, thus releasing only 1% of nitrogen catabolites (NC) and energy. By comparison dietary proteins release between 52% to 84% nitrogen catabolites and energy. This fact evidences that MAP™ is safer than dietary proteins, and that provides the lowest amount of energy in comparison to any dietary protein.

FIG. 1 Dietary Protein Metabolism



To illustrate: *when a dietary protein is digested, it releases its constituent amino acids into the small intestine, where they are absorbed. Then, those amino acids can follow either the anabolic pathway or the catabolic pathway.*

FIG. 2 The Protein Metabolism Anabolic Pathway

When dietary amino acids follow the anabolic pathway, they act as precursors for the body's protein synthesis, thus becoming the body's constituent proteins. Throughout the anabolic patway, amino acids do not release any nitrogen catabolites or energy.

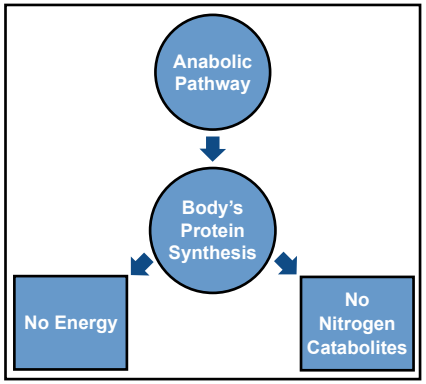
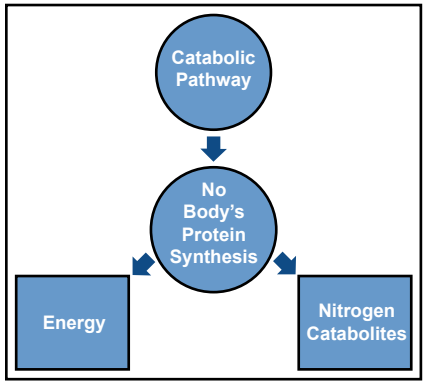


FIG. 3 The Protein Metabolism Catabolic Pathway



On the other hand, when dietary amino acids follow the catabolic pathway, they act only as a source of energy and not as precursors of body's proteins synthesis. Throughout the catabolic pathway, amino acids do release nitrogen catabolites and energy.

INDICATIONS & USAGE

MAP™ is indicated as a safe and effective substitute for dietary proteins.

MAP™ vs. Dietary Proteins & Protein Supplements

Characteristics	MAP™	Dietary Proteins	Protein Supplements
NNU for BPS	99%	32% (average)	16% (average)
Digestion Time	23 min	3-6 hours (6-12 times longer)	3-6 hours (6-12 times longer)
BPS/Time (NNU/min)	99% NNU/ 23 min	24-48 times lower	48-96 times lower
Released Nitrogen Catabolites	1%	68% (average)	84% (average)
Energy	0.04 kcal/g	4 kcal/g	4 kcal/g
Fecal residue	Absent	Present	Present
Contraindications	None	Renal Failure or Hepatic Failure	Renal Failure or Hepatic Failure
Adverse Reactions	None	Food Sensitivities	Food Sensitivities
Refrigeration	Not Needed	Needed	N/A

ADVERSE REACTIONS

No adverse reactions have been reported.

OVERDOSAGE

No adverse reactions have been reported.

DOSAGE & ADMINISTRATION

MAP™ should be administered with food. MAP™ in a dosage of 400mg/kg/day has been shown to be adequate, as a sole and total substitute of dietary proteins, to maintain the body's nitrogen balance in equilibrium. To calculate the MAP™ dosage necessary to substitute dietary proteins, apply the following:

MAP™ dosage = (Dietary Protein × 0.4) g

For instance, to calculate the dosage of MAP™ necessary to substitute 10 g of dietary proteins, proceed as follows:

1. MAP™ dosage = (Dietary Proteins × 0.4) g
2. MAP™ dosage = (10 × 0.4) g
3. MAP™ dosage = 4 g

Therefore, 4 g of MAP™ provide a body's protein synthesis equivalent to that provided by 10 g of high biological value dietary proteins.

If administering more than 10 tablets per day, increase dosage gradually. (No more than 10 tablets should be administered within a two hour period.)

SUPPLY INFORMATION

MAP™ is available in bottles of 120 tablets of 1,000 mg, for oral administration.