

# Super Amino 23™ can substitute dietary proteins in a safer and nutritionally more efficient way

## INDICATIONS & USAGE

Super Amino 23™ is indicated as a safe and effective substitute for dietary proteins.

## DESCRIPTION

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

## COMPOSITION

Super Amino 23™ contains the MAP Master Amino Acid Pattern® described in U.S. Patent No. 5,132,113 a unique pattern of essential amino acids in a highly purified, free, crystalline form.

## SUPER AMINO 23™ VS. DIETARY PROTEINS AND PROTEIN SUPPLEMENTS

Characteristics	Super Amino 23™	Dietary Protein	Protein Supplements
NNU for BPS	99%	16% - 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/23min	24-48 times lower	48-96 times lower
Released Nitrogen Catabolites	1%	68%-84% (average)	84%(average)
Energy	0.04 kcal/g	4 kcal/g	4kcal/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

Super Amino 23 should be administered with food. Super Amino 23 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 SON Formula® dosage necessary to substitute dietary proteins, apply the following:

$$\text{Super amino 23 dosage} = (\text{Dietary Protein} \times 0.4) \text{ g}$$

For instance: to calculate the dosage of Super Amino 23 necessary to substitute 10 g of dietary proteins, proceed as follows:

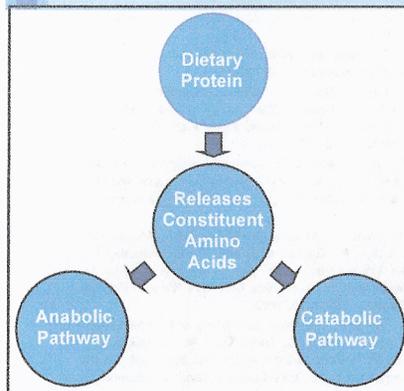
1. Super Amino 23 dosage = (Dietary Proteins × 0.4) g
2. Super Amino 23 dosage = (10 × 0.4) g
3. Super Amino 23 dosage = 4 g

Thus, 4 g of Super Amino 23 provide a body's protein synthesis equivalent to that provided by 10 g of high biological value dietary proteins.

## SUPPLY INFORMATION

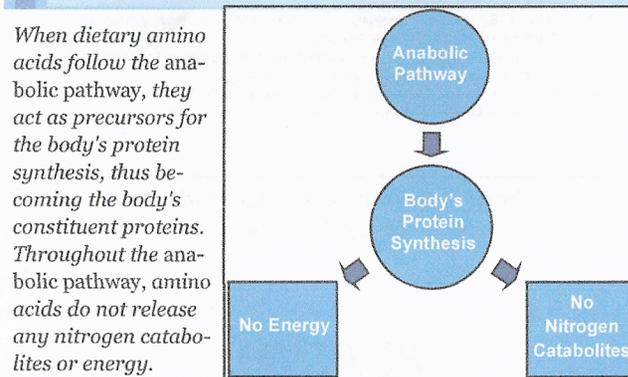
Super Amino 23 is available in bottles of 150 tablets of 1,000 mg, for oral administration.

FIG. 1



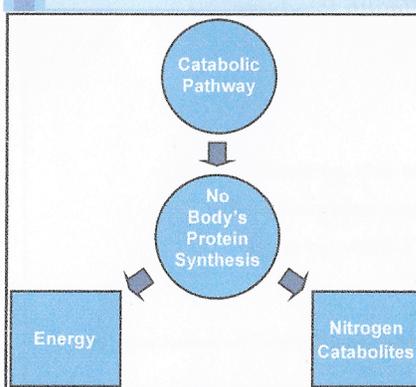
To illustrate: when a dietary protein is digested, it releases its constituent amino acids into the small intestine, where they are absorbed. Then, those amino acids can follow either the anabolic pathway or the catabolic pathway.

FIG. 2



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 pathway, amino acids do not release any nitrogen catabolites or energy.

FIG. 3



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.

## 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. This fact evidences that MAP™ is more nutritious than dietary proteins. This has been confirmed by the fact that during the study, 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 (1g MAP™ = 0.04 Kcal). The study's 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 provides the lowest amount of energy in comparison to any dietary protein.

## MAP Master Amino Acid Pattern® Related Scientific Publications

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During Health and Disease

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