

## MAP - Dosage

International Nutrition Research Center, Inc.  
7900 Los Pinos Circle  
Coral Gables, FL 33143

### MAP® Tablets (Master Amino Acid Pattern (MAP®)) A safe and effective substitute for dietary proteins

#### DESCRIPTION

MAP® (MAP®) is a patented dietary proteins substitute, which provides 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®, in addition to the active ingredient MAP®, contains no inactive ingredients.

#### COMPOSITION

MAP®, in a dose of 10 g, provides the following essential amino acids profile:	* L-Leucine	1.964 g
	* L-Valine	1.657 g
	* L-Isoleucine	1.483 g
	* L-Lysine	1.429 g
	* L-Phenylalanine	1.289 g
	* L-Threonine	1.111 g
	* L-Methionine	0.699 g
	* L-Tryptophan	0.368 g

#### CLINICAL STUDIES

The results of a comparative, double-blind, triple crossover Net Nitrogen Utilization (NNU) clinical study 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. 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 results have also shown that 1% of MAP's constituent amino acids followed the catabolic pathway, thus releasing only 1% of nitrogen catabolites 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.

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. I).

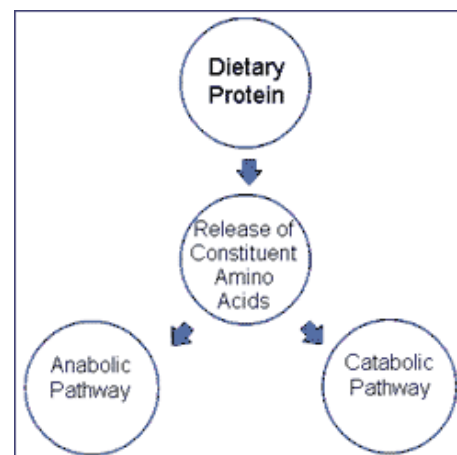


Figure I. Dietary Protein Metabolism