

MAP® – Master Amino Acid Pattern

8 essential amino acids (free and crystalline) as basic building blocks of protein metabolism / Dietary nutrient

... a Revolution in Protein Nutrition

MAP® is a pure foodstuff and has a 100% pure, free crystalline amino acid content.

MAP® has a bioavailability/digestibility of 100%.

MAP® provides an optimal ratio of the eight essential amino acids L-Leucine, L-Valine, L-Isoleucine, L-Lysine, L-Phenylalanine, L-Threonine, L-Methionine and L-Tryptophan for the human dietary pattern.

MAP® therefore achieves **99 % Net Nitrogen Utilization [NNU]***.

MAP® forms **only 1% nitrogen catabolites [NC]** like ammonia or urea, as a consequence of 99% NNU*.

MAP® is almost completely calorie free (just 0.4 kcal in 10 tablets). It introduces the same amount of actually anabolic utilisable amino acids to the body as 350g meat, fish or poultry.

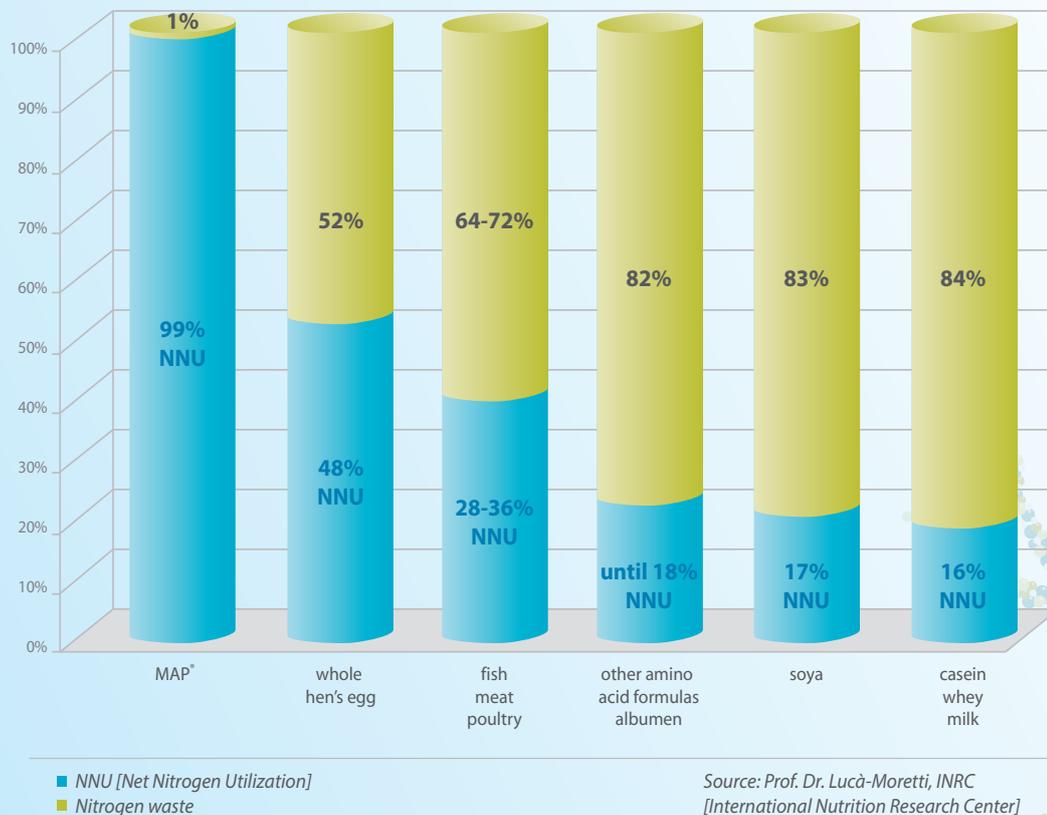
MAP® is completely reabsorbed in the small intestine within 23 minutes. It is already split and does not require any peptidases. The transition period of usual nutritional proteins into the body takes 5 to 13 times longer.

MAP® does not leave behind any digestive end products.

MAP® is vegan and fermented from pulses (GMO free). It is free from any additives or doping substances. It is not a drug and does not have any contraindications.

* NNU = Net Nitrogen Utilization = Protein nutritional value

Ratio of Net Nitrogen Utilization (NNU) compared to nitrogen waste in food proteins



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... for balanced health

The discovery of the Master Amino Acid Pattern (MAP) – the specific pattern to every human being

In more than 30 years of research Prof. Dr. Lucà-Moretti has discovered that all living organisms (including humans) have their own very **specific amino acid pattern** – known as the ‘**master pattern**’ – used to attain maximum protein synthesis. To synthesise protein in the body (i.e. for amino acids actually to be used as building blocks for cell metabolism), **all 8 essential amino acids must be present at the same time and exactly in accordance with the organism’s specific amino acid pattern.**

Only when all 8 essential amino acids are available at the same time and in the correct ratio to one another our body can use them to repair and build cells. In any other case the nutritional value of the amino acids is lowered dramatically and body protein synthesis is much lower. Then the amino acids are broken down (catabolism), producing toxic nitrogen waste, which must be eliminated through the excretory organs (liver, kidneys). However, the degradation of amino acids also produce glucose, which diabetics or people who must follow a low-carb diet can avoid by taking **MAP®**.

The more the ratio of the 8 essential amino acids deviates from the optimum pattern, the lower is the protein nutrient value i.e. the Net Nitrogen Utilisation (NNU*) of a protein food source. Accordingly, the proportion of nitrogen catabolites (NC) is higher. The inversely proportional ratio between NNU and energy or nitrogen waste (NC) based on proportion of the 8 essential amino acids is shown in the chart on the first page.

MAP® is a revolution in protein nutrition

At the International Nutrition Research Center (INRC) in Florida, Prof. Dr. Lucà-Moretti has investigated this Master Amino Acid Pattern. Today it is used as the amino acid combination **MAP®**, a foodstuff for protein nutrition or to boost a diet. **MAP®** is the only formula that is created according to the exact human pattern. That means that **MAP®** supplies the 8 essential amino acids (free and crystalline) in this crucial ratio for human usability. That is the reason why **MAP®** archives a Net Nitrogen Utilisation of 99%. So **MAP®** provides the highest protein nutritional value and the smallest amount of toxic nitrogen waste (1%) in the world. Nearly all amino acids can be used as precursors for body protein synthesis and therefore to build up new cells. Compared: soya protein provides 17% NNU and 83% waste (see chart). These correlations are scientifically proven in a study by Prof. Dr. Lucà-Moretti.

MAP® also produces virtually no calories, because from only 1% waste only 1% glucose can be formed. Especially diabetic people are enabled to a better control of their blood sugar level with a substitution of common protein food by **MAP®** because dietary protein delivers glucose via the gluconeogenesis. Therefore **MAP®** is also particularly suitable for medical purposes, above all for illnesses relating to a protein deficiency. As a unique food protein, it can break the vicious circle of requiring higher levels of protein and therefore creating increased nitrogen toxins as well as glucose at the same time. **MAP®** does not require splitting enzymes and is blood capable available to the body after 23 minutes.

MAP® in comparison with other protein extracts from commercial sources

Protein source	Required consumption amount of dietary protein	NNU*	Anabolic yield in g	Nitrogen waste in g	Glucose in kcal	Load of nitrogen waste from dietary protein in comparison to MAP®
MAP®	10,0 g	> 99%	> 9,9 g	< 0,1 g	0,4 kcal	
Spirulina protein	55,0 g	18%	9,9 g	45,1 g	180,4 kcal	451 : 1
Soya protein	58,2 g	17%	9,9 g	48,3 g	193,2 kcal	483 : 1
Whey protein	61,9 g	16%	9,9 g	52,0 g	208,0 kcal	520 : 1

A constructive value of 9.9 g is aimed at for body protein synthesis. This means, for example, that 10 g of MAP® with a 99% Net Nitrogen Utilisation (NNU) or 61.9 g protein from whey with a 16% NNU would have to be eaten. This produces an anabolic ratio of 6:1 and a ratio of nitrogen waste produced from whey protein compared to MAP® of 520 :1!

Ingredients

100% ultrapure free-crystalline amino acids (protein building blocks) from vegan sources (pulses), GMO free, namely L-Leucine (19.6%), L-Valine (16.6%), L-Isoleucine (14.8%), L-Lysine (14.3%), L-Phenylalanine (12.9%), L-Threonine (11.1%), L-Methionine (7.0%), L-Tryptophan (3.7%). **MAP®** is free from any additives or doping substances. **MAP®** is not a drug but a super food.

Recommended dosage

Take 5 **MAP®** tablets 1-2 times a day with sufficient fluids, best before the meals.

Higher dosages for sport or dietary nutrition programs in accordance with your nutrition consultant, trainer, health practitioner or doctor. It is also important to observe a balanced diet and healthy lifestyle.

For **MAP®** there are no restrictions or intolerances. However, people with severe protein deficiency / protein undersupply may notice increased regulative and building effects, above all in the muscles and joints. In this case, it is advisable to reduce the dosage before gradually building it up again – much in the same way as severely dehydrated people should be re-accustomed to water only slowly.



Nutritional values	Per 10 tablets (10 g)	Per 100 tablets (100 g)
Energy/caloric value	0.4 kcal (1.68 kJ)	4 kcal (168 kJ)
Protein	10 g	100 g
Carbohydrates	0 g	0 g
Fat	0 g	0 g

Content: 120 tablets / 120 g. Sufficient for 40 – 7 days, depending on the dosage.

Use: MAP® can be used at any time of life and for any everyday situation as part of a healthy lifestyle to optimise the synthesis of body protein and reduce the burden of nitrogen waste as well as glucose from food proteins metabolism.

- Enhancement and supplementation of your daily diet, particular of people who are in a special physiological condition, such as the elderly, pregnant women and nursing mothers, growing children, people in regeneration
- Mental burdens and stress
- Sport or other physical exertion
- Vegetarian or vegan lifestyles
- Preservation and strengthening of muscles and lean tissues
- Diets, particular ketogenic and hyperketogenic diets, weight loss programs to avoid the yo-yo effect, detox schemes
- Diabetic nutrition, intolerance or reduced intake and utilization of dietary protein
- Counteraction of illness, emaciation, immune weakness and metabolic disorders
- Clinical nutrition for people suffering from protein deficiency, kidney and liver diseases, stomach and bowel illnesses, people with gout, rheumatism or arthrosis or inflammatory processes, epilepsy, oncological nutrition, especially preventing tumor cachexia, in accordance with the appropriate doctor or medical practitioner

MAP® is recommended for additional nutrition for athletes, children, youths, seniors and adults as a protein supplement or even as a complete replacement during a diet. MAP® is highly recommended during pregnancy and the lactation period and can be taken safely. MAP® is especially suggested for older people when the usual intake of protein via meals is insufficient due to reasons of the aging process. The dose varies for each individual and depends on sex, age, size, weight and performance requirements. Top-level athletes, pregnant women/breast feeding mothers, people suffering from stress or who are ill have a much higher protein requirement.

Also in vegetarians a lack of protein supply can be assumed in general. Plant proteins have only a NNU* of 18% maximum and due to that they provide a particularly large number of nitrogen reduction toxins (> 82%). Therefore, vegetarians and vegans normally have an exceptionally poor protein status. To compensate the leak even more vegetable protein with low protein quality is eaten. We advise to omit burdening plant-sourced foods rich in protein (such as soya, whey or casein concentrates) and substitute with MAP® (99% NNU*, 1% nitrogen waste).

Diet program with MAP®: dr. reinwald metabolic regulation®

This program is combining the latest scientific knowledge, also making fundamental differences to ordinary diets:

- [1] **The most optimal protein provision** for the preservation of valuable lean body substance (tissue, especially muscles) during a metabolic program is essential (optimal protein diet). A substitution of dietary protein by MAP® during the diet phase relieve metabolism as well as degradation organs (kidneys, liver) almost entirely of nitrogen waste (<1%) and glucose (<1%) out of food proteins. MAP® also relieves the gastrointestinal tract as well as the intestine. This in turn supports free capacities for other endogenous detox processes as they may appear increasingly in metabolic programs and detox diets.
- [2] **Low-carb diet: Bowel cleansing and reducing carbohydrates:** Parallel high-energetic carbohydrates (monosaccharides, potatoes, pasta, bread) are reduced. While increasing the proportion of vital substances and superior protein to reverse the vicious cycle to get fat and/or having a bad distribution of body fat caused by the Protein Leverage Effect.
- [3] **Acid-base balance, essential fatty acids and antioxidants:** Buffers acidic waste as well as builds up the body's own base stores and the body's antioxidant capacity. From fat reduction, slag removal and body exercises results an increase of acid load, that is captured with strong antioxidants (**New-H®**) and mineral-rich alcalic powders (**VitalBase®** with apple pectin) as well as alcalic body care (foot bath, full bath). Essential fatty acids and coconut oil – food for our brain!
- [4] **Buffering, binding and eliminating toxins:** For the inner cleansing and improved elimination of toxins, which the body can store i.e. in the fatty tissue. These processes are supported in the serum and in the body cells with a cell-active micro pektin (**PektiClean®**) and organic sulfur (e.g. **SulfoClean®**) and in the bowel with further binding-active fiber (eg **ChitoClean®** and **ColoStabil**).
- [5] **Exercise is »the medicine of the future«** for stimulation of metabolism, fat burning, breathing, oxygen absorption, intestinal peristalsis, lymph flow and nutrition of bones and joints but also for general body fitness, stretching, endurance and strength.

The dr. reinwald metabolic regulation® program offers guidelines for different nutritional requirements. A personal consultation about the extended medical scheme can be obtained from the therapist or clinic you got this information from.



... for balanced health

About amino acids – the building blocks of life

Almost all vital substances which our body requires are converted from various amino acids into peptides or protein. Amino acids are the elementary building blocks of life. They are transported via the blood to the parts of the body where they are transformed and incorporated into the body's own protein (organ tissue such as skin, muscular apparatus, liver cells, enzymes, etc.). Amino acids also form the basis for hormones (e.g. insulin, glucagon) or neurohormones (serotonin, melatonin). In the same way for scleroproteins (collagen, elastin, keratin) as well as structural protein (actin, myosin) and plasma protein (globulin) or transport proteins such as albumin and haemoglobin. Furthermore, they are important for the production of male and female hormones and the maintenance of a healthy libido.

In addition, they form the basis for our immune system (antibodies, blood clotting factors). Proteins are also required as reserve substances for the energy supply in case of hunger. Above all, the body forms them from the muscular apparatus, the spleen and the liver. It is mostly these organs that they are adducted in times of hunger – and also in the case of false diets or fasting cures – with the help of gluconeogenesis (generation of glucose) for the energy supply. Every day the organism produces between 80,000 and 120,000 different enzyme connections by stringing together different amino acid molecules and converting them into molecular chains in body protein.

Our modern form of nutrition, vegetarianism and our stress-related way of life do not always guarantee that we receive and/or make use of all essential amino acids in sufficient quantities. Protein requirements are seriously underestimated. With increasing age or in times of stress or illness the absorbability of the body sinks (decrease in digestive and detoxification power, protein utilization malfunctions).

Due to the exceptional importance of amino acids for nutrition our organism has a built in protein hierarchy, i.e. a position of priority in protein nutrition. The result is that we are satisfied when we have taken on sufficient protein. If we only eat inferior protein, we take on more calories than we can burn off in order to satisfy our "protein hunger". The result is that we become fat. For **MAP®** has a much higher nutritional value than all other protein sources, it supplies us with sufficient amounts of high quality protein via the eight essential amino acids without loading ourselves with nitrogen toxins. This means that our feeling of hunger disappears while our kidneys and liver are unburdened. As **MAP®** does not create any digestive end products, it results in the relief of the digestive system and also the cardiovascular system.

Further, the special information sheets you can download from www.map-protein.com or are available by contact:

- **MAP®** in the aging process + exercise for seniors
- **MAP®** for pregnant / nursing mothers
- **MAP®** for vegetarians / vegans
- **MAP®** for athletes
- **MAP®** for diabetic nutrition
- **MAP®** for weight control
- **MAP®** for clinical nutrition
- Basic program: **dr. reinwald metabolic regulation®**

For more information about the possibilities of nutritional medicine, see www.drreinwald.com.

MAP® can be obtained from:

