

A man and a woman are shown in profile, facing each other. The man, on the left, is wearing a white t-shirt and holding a clear plastic bottle of yellow protein water. The woman, on the right, is wearing a grey hoodie and is drinking from a similar bottle. They are outdoors, with a blurred background of trees and a building. The lighting is warm and golden, suggesting late afternoon or early morning.

# STAY FIT — GO CRYSTAL CLEAR WITH PROTEIN WATER

**Arla Foods Ingredients**  
Discovering the wonders of whey 



The world is currently challenged by increased prevalence of overweight and obesity among both the young and adults. New data has estimated that obesity has doubled Worldwide, between 1980 and 2008, and that 12 per cent of the world's population are today considered obese (1). The consequences of obesity are detrimental to the health status of a population. Obesity triples the risk of developing type II diabetes, insulin resistance and cardio-vascular disease (CVD). Low physical activity levels and increased intake of unhealthy foods and drinks are some of the reasons for this worldwide problem.

Lacprodan® SP-9213

Lacprodan® SP-9213

Allows you to produce crystal clear beverages

Enabling the consumers to enjoy a guilt-free, great tasting, healthy soft drink.

There is a need for simple changes in lifestyle and habits to ensure the population get healthier. We can now offer you our whey protein isolate Lacprodan® SP-9213 for crystal clear soft drinks (table 1), making it easier for consumers to make healthier choices without turning their world upside down.

Lacprodan® SP-9213 – FACTS

- A natural high quality whey protein isolate
- Suitable for UHT crystal clear whey protein isolate drinks
- An excellent tasting protein source
- Offers all essential amino acids (EAA)

Stay fit and low – with whey protein isolate

Whey protein have long been recognized as an outstanding protein source because of its high protein quality. This high quality is based on the fact that whey proteins are easily digestible and have the highest content of the essential amino acids compared with other protein sources.

A high-protein diet has been shown to induce sustained reductions in appetite, ad libitum caloric intake and body weight (2-9). Whey protein offers all essential amino acids (EAA), including the muscle-building branched chain amino acids (BCAA) leucine, isoleucine and valine. The high content of BCAA plays specific metabolic roles in the regulation of muscle protein synthesis (10), for improved body composition. But the benefit go beyond body composition.

Blood glucose is an essential measure of health that has a direct impact on appetite, and weight regulation. Many millions of people are struggling with managing their blood sugar levels. Whey protein and some specific amino acids have a key role in regulating blood blood glucose after a meal, thereby making it easier to stabilize blood glucose (11).

TABLE 1  
Whey protein isolate from Arla Foods Ingredients suitable for healthy soft drinks

PRODUCT	PROTEIN (%)	FAT (%)	CARBOHYDRATES (%)	TASTE
Lacprodan® SP-9213	Min. 85	Max. 0.2	Max. 0.2	Neutral

### The solution is crystal clear

Crystal clear beverages are extremely appealing as a tasty, refreshing soft drink. Arla Foods Ingredients has developed a unique whey protein isolate which, when applied in drinks applications, can give a high protein content and yet allow the drink to be crystal clear.

By using Lacprodan® SP-9213 in a soft drink, you will be able to produce a natural, healthy, sugar and fat free drink with added health claims for muscle, and bone.

Lacprodan® SP-9213 also allows you not to compromise taste, although it is healthy. Lacprodan® SP-9213 whey protein isolate can be applied in a crystal clear UHT beverage with up to 9% protein content.

### Your opportunity to reach the consumer – protein water with Lacprodan® SP-9213

Beverage	500 ml	% of DRI*
Protein, g	10	22
Fat, g	0.05	–
Carbohydrates, g	0.05	0.02
Total energy, KJ (Kcal)	175 (41.5)	2
Energy from protein, %	98	

*Guided daily amount for female, 19-50 years*



## References

1. WHO's World Health Statistics 2012
2. Westerterp-Plantenga MS, Nieuwenhuizen A, Tomé D, Soenen S, Westerterp KR. (2009). Dietary protein, weight loss, and weight maintenance. *Annu Rev Nutr* 29:21-41.
3. Weigle DS, Breen PA, Matthys CC et al. (2005). A high-protein diet induces sustained reductions in appetite, ad libitum caloric intake, and body weight despite compensatory changes in diurnal plasma leptin and ghrelin concentrations. *Am J Clin Nutr* 82:41-8.
4. Layman DK and Walker DA (2006) Potential importance of leucine in treatment of obesity and the metabolic syndrome. *J Nutr* 136:319S-23S
5. Lockwood CM, Moon JR, Tobkin SE, Walter AA, Smith AE, Dalbo, VJ, Cramer JT and Stout JR. (2008). Minimal Nutrition intervention with high-protein/low-carbohydrate and low-fat, nutrient-dense food supplement improves body composition and exercise benefits in overweight adults: a randomized controlled trial. *Nutr Metab* 5:11
6. Veldhorst M, Smeets A, Soenen S, Hochstenbach-Waelen A, Hursel R, Diepvens K, Lejeune M, Luscombe-Marsh N, Westerterp-Plantenga M. (2008). Protein-induced satiety: Effects and mechanisms of different proteins. *Physiology and Behavior* 94:300-307
7. Pasiakos SM, Cao JJ, Margolis LM, Sauter ER, Whigham LD, McClung JP, Rood JC, Carbone JW, Combs Jr. GF and Young AJ. (2013). Effects of high-protein diets on fat-free mass and muscle protein synthesis following weight loss: a randomized controlled trial *FASEB Journal* 27(9): 3837-3847
8. Paddon-Jones D, Westman E, Mattes RD, Wolfe RR, Astrup A, and Westerterp-Plantenga M. (2008). Protein, weight management, and satiety *Am J Clin Nutr* 2008;87(suppl):1558S-61S.
9. Baer DJ, Stote KS, Paul DR, Harris GK, Rumpler WV, and Clevidence BA. (2011). Whey Protein but Not Soy Protein Supplementation Alters Body Weight and Composition in Free-Living Overweight and Obese Adults. *J. Nutr.* 141: 1489-1494
10. Tang JE, Moore DR, Kujbida GW, Tarnopolsky MA, Phillips SM. (2009). Ingestion of whey hydrolysate, casein, or soy protein isolate: effects on mixed muscle protein synthesis at rest and following resistance exercise in young men. *J Appl Physiol* 107:987-992
11. Gunnerud UJ, Östman EM and Björck IME. (2013). Effects of whey proteins on glycaemia and insulinaemia to an oral glucose load in healthy adults; a dose-response study. *European Journal of Clinical Nutrition* 67:749-753

## WHY CHOOSE ARLA FOODS INGREDIENTS?

### R&D in our DNA

- More than 16% of our employees work with research, innovation and application development
- Collaboration with top universities worldwide
- Clinical and scientific documentation

### Superior quality

- Premium quality ingredients
- Kosher and Halal certification

### Your trusted business partner

- Application support
- Business development support
- In-depth nutrition research and formulation support

### Security of supply

- Producing whey proteins since 1980
- Leading supplier of whey proteins, whey protein hydrolysates, whey fractions and lactose
- Continuous investment in production capacity to meet the growing volume needs of global customers
- Reliable supplies from three production sites

### Disclaimer

All rights to the information contained herein belong to Arla Foods Ingredients P/S. The information is confidential and may not be disclosed to third parties or exploited by users without prior written consent. Statements contained herein do not constitute permission to infringe any patent or license rights. The information contained herein is reliable to the best of our knowledge. The details given are intended only as a source of information. Users should evaluate the products to determine their suitability for the user's own specific purposes and compliance with relevant food legislation. No warranties, expressed or implied, are made.

**Arla Foods Ingredients**  
Discovering the wonders of whey 

Arla Foods Ingredients Group P/S, Sønderhøj 10 - 12, 8260 DK-Viby J