

NUTRALYS® PEA PROTEIN - ISOLATES

NUTRALYS® pea protein is a range of plant protein ingredients, extracted from the yellow pea through ROQUETTE's patented water process. **The result is a trusted, clean-tasting and nutritious high-quality protein.** The range offers easy-to-use ingredients suitable for a wide range of applications. Sustainability, value-added functionalities and nutritional benefits are part of the complete NUTRALYS® solution.

NUTRALYS[®] Pea Protein - Range and Applications

Grades and main functionalities	F85M Gelling, Emulsifying	L85M Reduced sodium	F85G Higher flowability	S85AF Clean taste	S85F Solubility, Emulsifying	B85F Low water binding	S85XF Smooth texture	S85 PLUS High solubility, Low viscosity
Organic version available	~				~		~	
Plant-Based Meats	Ø	Ø	•					
Sauces	②							
Bakery and Snacks (Extruded snacks, bars, breads, biscuits)			•			•		
Dairy alternatives							Ø	•
Wine Fining							•	
Specialized Nutrition (Protein powder mixes, bars, RTD beverages)				•	•	•	•	•
Clinical Nutrition					•		②	•
Caramel and Chocolate Compounds					•		Ø	

 ${\it Visit\ roquette.com/product-finder\ for\ product\ availability\ by\ region.}$

Naturally Nutritious

- Highly quality pea protein isolate (85% on DS)
- Source of BCAA (branched-chain amino acids): Leucine 8.2g, Isoleucine 4.7g and Valine 5g per 100g protein (Nx6.25)
- Alternative and/or complementary to milk and soy proteins
- · Low isoflavone content
- · Easy digestible
- · Faster-digesting protein compared to casein

A Sustainable Solution

- · Yellow peas are non-GMO crops
- Yellow peas require no irrigation and no nitrogen fertilization
- · Manufactured in France and in Canada





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Product Information

Ingredient Label:

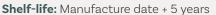
Pea protein isolate or pea protein.

Key Facts:

- · Not a major allergen¹
- Non-GMO²

Packaging:

20kg and 25kg bags, big bags



Best Before Date: Manufacture date + 2 years³



Amino Acid Profile:

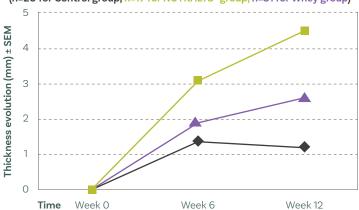
Typical data g on 100g protein (Nx6.25)

Asparic Acid	11.5
Glutamin Acid	16.7
Alanine	4.3
Arginine	8.7
Cysteine	1
Glycine	4
Histidine	2.5
Isoleucine	4.7
Leucine	8.2
Lysine	7.1
Methionine	1.1
Phenylalanine	5.5
Proline	4.3
Serine	5.1
Threonine	3.8
Tyrosine	3.8
Valine	5
Tryptophan	1

Each NUTRALYS® pea protein benefit is supported by at least one clinical study⁴

Muscle Mass Development Relative evolution of the thickness of the biceps brachii over the study period

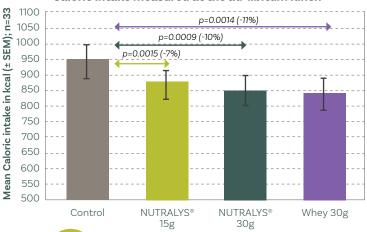
Analysis on the POPULATION WITH A MODERATE MUSCLE STRENGTH (n=20 for Control group, n=17 for NUTRALYS® group, n=31 for Whey group)





With appropriate exercise, NUTRALYS® pea protein promoted a significant increase in muscle mass⁴

Short-Term Satiety and Caloric Reduction Caloric intake measured at the ad-libitum lunch

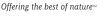




NUTRALYS® pea protein induced a significant decrease of the caloric intake during the αd libitum meal (down to 11%)⁴

1. Pea is not listed in the Codex Stan 1-1985 (Rev. 1-1991)-§4.2.1.43, list of allergens to be labeled. Due to a few rare reported allergic reactions with pea (and their derived products), we strongly suggest to our customers to list the botanical origin of their pea derived products in their ingredient statement. 2. According to Regulations (EC) No 1829/2003 and No 1830/2003. 3. European regulations 1169/2011 and 1333/2008/CE for food additives require the labeling of a 'Minimum Durability Date' on the food and food ingredient packaging. 4. Any information provided herein is intended for food operators for their internal awareness only and must not be delivered as such to final consumers. No warranty, whether expressed or implied or guarantee of product properties is intended or implied. Each NUTRALYS® health benefit is supported by at least one clinical study and does not constitute a validation for health claims. Food manufacturers who would like to use NUTRALYS® pea protein for these benefits will have to run their own studies based on their own formulation, and respect claims validation process, communication, and/or usage levels, on a country-by-country basis where appropriate. Roquette does not warrant that the information or its use will not infringe any patent or other proprietary rights of any third party. Providing any such information shall not be construed as a commitment of Roquette to sell any product encompassing any of such information in the future.





Nutritional and Technological Food Solutions