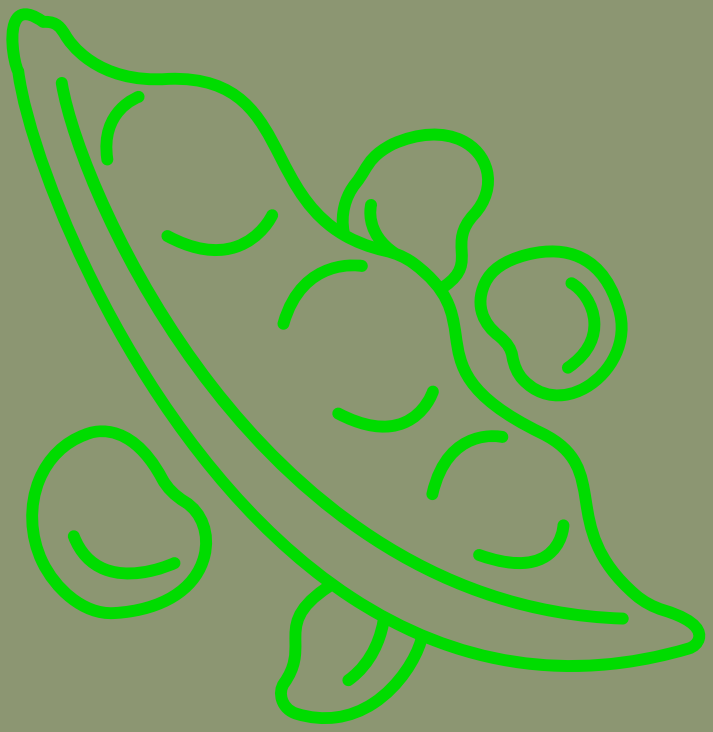
Faba Bean Protein



Like a PRO

like-a-pro.eu

project-like-a-pro

LIKE-A-PRO is a EU-funded project aiming to facilitate sustainable and healthy diets by mainstreaming alternative proteins and products, making them more available, accessible and acceptable.

Faba Bean Protein Benefits

Faba bean is a legume distinguished by its high protein content (25-40% dry weight), surpassing most legumes. Its amino acid profile, rich in lysine, makes it a valuable complement to cereals to achieve balanced protein quality. Moreover, faba bean serves as an abundant source of bioactive compounds such as phenolic compounds, resistant starch, dietary fibre, and non-protein amino acids as well as bioactive peptides exhibiting antioxidant, antihypertensive, and anti-inflammatory properties. This diverse bioactive profile positions faba bean as a **strategic crop** for developing bifunctional ingredients and nutraceuticals. From a sustainability perspective, faba bean stands out for its biological nitrogen fixation capacity, which significantly reduces dependence on synthetic fertilizers and mitigates environmental issues.

Extraction Challenges

However, faba bean protein extraction is not fully deployed yet as existing extraction processes (e.g., chemical, mechanical, biological extraction) carry technical limitations such as protein denaturalisation, low protein purity, low yield or high costs.

Funded by the European Union

Optimised Extraction Process

As part of LIKE-A-PRO project, **SANYGRAN** optimised and upscaled its extraction process of faba bean protein, successfully obtaining a protein ingredient through a mechanical, solvent-free, and highly efficient extraction process with the following key features:

High functional performance

Protein-rich concentrate (~60% protein), highly versatile with **outstanding solubility**, **foaming**, **emulsification**, and **water/oil-holding properties** that enhance texture, stability, mouthfeel across beverages, bakery, meat analogues, hybrid products, and sauces.

High nutritional value with proven digestibility

Balanced amino acid profile, **high digestibility** and similar nutritional performance to high-quality animal proteins, with **low levels of antinutritional factors**.

Sustainable, clean-label extraction

Produced through a mechanical, **solvent-free process** with **low energy use**, reduced environmental impact, and **full traceability**, delivering a **non-GMO**, **allergen-free** ingredient that supports clean-label products.

Proven scalability and commercial readiness

SANYGRAN facility operates at industrial throughput (≈900–1,260 kg protein/h), confirming that the process is **commercially viable** and not limited to pilot-scale demonstration.

Overall, the service developed by SANYGRAN within the LIKE-A-PRO project integrates traceability, technical support for food manufacturers, and a reliable supply of a high-quality, non-GMO, allergen-free plant protein ingredient, offering a next-generation plant-based protein designed for food applications requiring performance, sustainability, and clean-label properties.

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