

WHO WE ARE

www.lukbotanik.com

Plant Focused. CO<sub>2</sub>-Powered.

**LUK BOTANIK** is a science-driven botanical extraction company dedicated to unlocking the potential of nature through **supercritical CO<sub>2</sub> technology**.

Operating in a **GMP-certified cleanroom facility**, we specialize in producing high-purity extracts from **medicinal and aromatic plants sourced from Turkey's** rich biodiversity.

Our commitment to **sustainability, zero-waste production, and solvent-free** methods positions us at the forefront of green innovation.

By combining quality standards with deep respect for nature, we help brands create **safer, more effective, and environmentally responsible formulations**.



Clean Label



Supercritical  
CO<sub>2</sub> Extraction



Full-Spectrum



Locally Sourced  
Plants



Lab-Tested  
in every stage

Product Insights

Supercritical CO<sub>2</sub> Extracts  
(Phytoextrakt® Line)

Plant Proteins

Natural Extracts

|                                                                                                                      |                                                                                              |                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Solvent-free, full-spectrum botanical extracts made using clean and precise supercritical CO <sub>2</sub> technology | High-purity plant proteins from pumpkin seed and almond, extracted with minimal processing   | Cold-pressed and ethanol-based extracts retaining natural active compounds for various applications |
| GMP-certified cleanroom production ensures pharmaceutical-grade quality and batch-to-batch consistency               | Ideal for functional food, protein bars, and dietary supplements with high nutritional value | Widely used in cosmetics, food, and healthcare sectors for their bioactive properties               |
| Sustainably sourced Turkish botanicals like thyme, nettle, rosemary, elderberry                                      | Free from chemical solvents, allergens, and artificial additives                             | Custom extraction options tailored for formulation compatibility                                    |
| High concentration of actives (terpenes, polyphenols, flavonoids, essential oils)                                    | Rich in amino acids, fibers, and antioxidants                                                | Flexible solubility options (oil/water) for different dosage forms                                  |
| Used in supplements, dermocosmetics, aromatherapy, and pharma-grade formulations                                     | Clean-label ingredient for modern plant-based nutrition                                      | Cost-effective and widely accepted in global markets                                                |



# Pumpkin Seed Protein Powder (Supercritical CO<sub>2</sub> Extracted)

≥ 66% Protein Content – Clean. Plant-Based. CO<sub>2</sub>-Powered.

## General Product Information

**Product Name:** Pumpkin Seed Protein Powder

**Botanical Source:** *Cucurbita pepo* L.

**Extraction Method:** Supercritical CO<sub>2</sub> Extraction  
(Solvent-free, low-temperature)

**Appearance:** Fine greenish powder

**Taste & Odor:** Mild, nutty, characteristic of fresh pumpkin seeds

**Storage Conditions:** Store in a cool, dry place, away from sunlight and moisture



## What Makes This Product Superior?

### Extraction Excellence:

Unlike hexane or cold-press methods, our protein is derived from pumpkin seed obtained via supercritical CO<sub>2</sub> extraction, a cutting-edge technology that preserves sensitive nutrients and volatile aroma compounds—ensuring **superior purity, safety, and flavor**.

### Full Flavor Retention:

Low-temperature processing means the resulting powder retains a **natural, clean taste profile**, with no burnt or bitter notes commonly found in heat-processed proteins.

### Zero Solvent Residue:

Our process uses only food-grade CO<sub>2</sub> — no hexane, alcohol, or chemical residues. This ensures **a 100% clean-label ingredient** that meets the highest purity standards.

### Higher Nutrient Integrity:

Essential fatty acids, trace minerals, and amino acids remain biologically active due to the gentle processing conditions. This **boosts bioavailability and functionality in formulations**.

### GMP Cleanroom Production:

Manufactured in a certified **GMP cleanroom**, ensuring GMP grade hygiene and traceability—rare in the plant protein industry.

| Feature                     | LUK BOTANIK CO <sub>2</sub> PROTEIN | Typical Market Protein |
|-----------------------------|-------------------------------------|------------------------|
| Protein Content             | ≥66%                                | 30-40%                 |
| Solvent-Free                | Yes                                 | Often hexane/ethanol   |
| Taste Profile               | Nutty, Clean                        | Bitter/Grassy          |
| Functional Use (Shakes/Bar) | Excellent (no off-taste)            | Often masked by flavor |
| Water or Solvent Needed     | None                                | Yes                    |
| Sustainability              | Clean Label, green technology       | Often untraceable      |

## NUTRITIONAL VALUES

| Nutritional Information | Per 100 g | Per 30 g Serving |
|-------------------------|-----------|------------------|
| Energy (kJ/kcal)        | 1548/370  | 464/111          |
| Fat (g)                 | 9,2       | 2,8              |
| Saturated Fat (g)       | 1,9       | 0,6              |
| Carbohydrate (g)        | 1,8       | 0,5              |
| Sugars (g)              | 1,5       | 0,5              |
| Fiber (g)               | 11,1      | 3,3              |
| Protein (g)             | 66,5      | 20,0             |
| Salt (g)                | 0,002     | 0,00             |

| Mineral                        | Per 100 g | Per 30 g Serving |
|--------------------------------|-----------|------------------|
| Potassium (mg)                 | 1758      | 527 / 26% NRV*   |
| Calcium (mg)                   | 103       | 31 / 4% NRV*     |
| Magnesium (mg)                 | 857       | 257 / 69% NRV*   |
| Zinc (mg)                      | 13        | 4 / 40% NRV*     |
| Iron (mg)                      | 15        | 5 / 32% NRV*     |
| *NRV: Nutrient Reference Value |           |                  |

| Amino Acid Profile                 | Per 100 g | Per 30 g Serving |
|------------------------------------|-----------|------------------|
| Alanine                            | 3         | 0,9              |
| Glycine                            | 3,8       | 1,1              |
| Valine**                           | 3,5       | 1,1              |
| Leucine**                          | 5,2       | 1,6              |
| Isoleucine**                       | 3         | 0,9              |
| Threonine*                         | 1,8       | 0,5              |
| Serine                             | 3         | 0,9              |
| Proline                            | 2,8       | 0,8              |
| Arginine                           | 6,8       | 2                |
| Aspartic Acid                      | 5,4       | 1,6              |
| Methionine*                        | 1         | 0,3              |
| Glutamic Acid                      | 12        | 3,6              |
| Phenylalanine*                     | 3,8       | 1,1              |
| Lysine*                            | 2,4       | 0,7              |
| Histidine*                         | 1,8       | 0,6              |
| Tyrosine                           | 2,5       | 0,8              |
| Tryptophan*                        | 0,9       | 0,3              |
| Total BCAAs                        | 11,7      | 3,5              |
| **Branched-Chain Amino Acid (BCAA) |           |                  |



High Fiber



High Protein



Ingredient



Plant-Based



Sugar Free

### Applications

- Functional Foods
- Plant-Based Protein Shakes
- Energy Bars & Nutritional Supplements
- Bakery and Snack Fortification

**Clean-Label Ingredient** – No solvents, no additives, no processing aids

**High Protein Content** – ≥66% plant-based protein

**Sustainably Produced** – Thanks to supercritical CO<sub>2</sub> extraction, our protein powder offers one of the lowest environmental footprints in its category.



# Almond Protein Powder (Supercritical CO<sub>2</sub> Extracted)

≥ 50% Protein Content – Clean. Plant-Based. CO<sub>2</sub>-Powered.

## General Product Information

**Product Name:** Almond Protein Powder

**Botanical Source:** *Prunus amygdalus dulcis*

**Extraction Method:** Supercritical CO<sub>2</sub> Extraction  
(Solvent-free, low-temperature)

**Appearance:** Fine off-white to light beige powder

**Taste & Odor:** Mild, slightly nutty, characteristic of natural almonds

**Storage Conditions:** Store in a cool, dry place, away from sunlight and moisture



## What Makes This Product Superior?

### Extraction Excellence:

Unlike hexane or cold-press methods, our protein is derived from premium almonds obtained via supercritical CO<sub>2</sub> extraction, a cutting-edge technology that preserves sensitive nutrients and volatile aroma compounds—ensuring **superior purity, safety, and flavor**.

### Full Flavor Retention:

Low-temperature processing means the resulting powder retains a **natural, clean taste profile**, with no burnt or bitter notes commonly found in heat-processed proteins.

### Zero Solvent Residue:

Our process uses only food-grade CO<sub>2</sub> — no hexane, alcohol, or chemical residues. This ensures **a 100% clean-label ingredient** that meets the highest purity standards.

### Higher Nutrient Integrity:

Essential fatty acids, trace minerals, and amino acids remain biologically active due to the gentle processing conditions. This **boosts bioavailability and functionality in formulations**.

### GMP Cleanroom Production:

Manufactured in a certified **GMP cleanroom**, ensuring GMP grade hygiene and traceability—rare in the plant protein industry.

| Feature                     | LUK BOTANIK CO <sub>2</sub> PROTEIN | Typical Market Protein |
|-----------------------------|-------------------------------------|------------------------|
| Protein Content             | ≥50%                                | 35–40%                 |
| Solvent-Free                | Yes                                 | Often hexane/ethanol   |
| Taste Profile               | Nutty, Smooth                       | Bitter/Harsh           |
| Functional Use (Shakes/Bar) | Excellent (no off-taste)            | Often masked by flavor |
| Water or Solvent Needed     | None                                | Yes                    |
| Sustainability              | Clean Label, green technology       | Often untraceable      |

## NUTRITIONAL VALUES

| Nutritional Information | Per 100 g | Per 30 g Serving |
|-------------------------|-----------|------------------|
| Energy (kJ/kcal)        | 1577/377  | 473/113          |
| Fat (g)                 | 8,6       | 2,6              |
| Saturated Fat (g)       | 1,3       | 0,4              |
| Carbohydrate (g)        | 9,0       | 2,7              |
| Sugars (g)              | 8,8       | 2,6              |
| Fiber (g)               | 20,7      | 6,2              |
| Protein (g)             | 50,1      | 15,0             |
| Salt (g)                | 0,0       | 0,0              |

| Mineral                        | Per 100 g | Per 30 g Serving |
|--------------------------------|-----------|------------------|
| Potassium (mg)                 | 1638      | 491 / 25% NRV*   |
| Calcium (mg)                   | 527       | 158 / 20% NRV*   |
| Magnesium (mg)                 | 560       | 168 / 45% NRV*   |
| Zinc (mg)                      | 6         | 2 / 18% NRV*     |
| Iron (mg)                      | 9         | 3 / 19% NRV*     |
| *NRV: Nutrient Reference Value |           |                  |

| Amino Acid Profile                 | Per 100 g | Per 30 g Serving |
|------------------------------------|-----------|------------------|
| Alanine                            | 2,8       | 0,8              |
| Arginine                           | 4,5       | 1,3              |
| Aspartic Acid                      | 6,3       | 1,9              |
| Glutamic Acid                      | 18,0      | 5,4              |
| Glycine                            | 3,8       | 1,1              |
| Histidine*                         | 1,6       | 0,5              |
| Isoleucine**                       | 2,8       | 0,8              |
| Leucine**                          | 4,9       | 1,5              |
| Lysine*                            | 2,2       | 0,7              |
| Methionine*                        | 0,9       | 0,3              |
| Phenylalanine*                     | 3,7       | 1,1              |
| Proline                            | 3,2       | 1,0              |
| Serine                             | 2,2       | 0,7              |
| Tryptophan*                        | 0,5       | 0,1              |
| Threonine*                         | 1,3       | 0,4              |
| Tyrosine                           | 1,7       | 0,5              |
| Valine**                           | 3,1       | 0,9              |
| Total BCAAs                        | 10,8      | 3,2              |
| **Branched-Chain Amino Acid (BCAA) |           |                  |



High Fiber



High Protein



Ingredient



Plant-Based



Sugar Free

### Applications

- Functional Foods
- Plant-Based Protein Shakes
- Energy Bars & Nutritional Supplements
- Bakery and Snack Fortification

**Clean-Label Ingredient** – No solvents, no additives, no processing aids

**High Protein Content** – ≥50% plant-based protein

**Sustainably Produced** – Thanks to supercritical CO<sub>2</sub> extraction, our protein powder offers one of the lowest environmental footprints in its category.