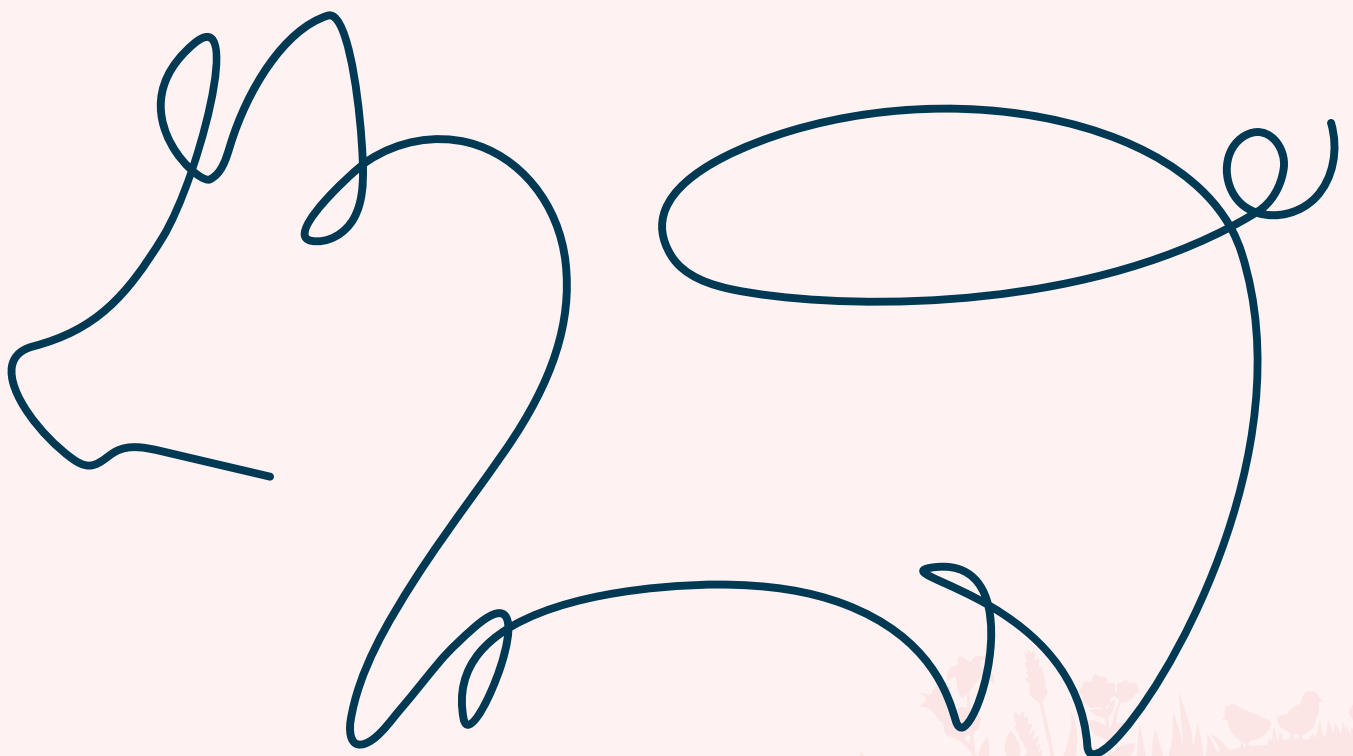


Peptan

A WORLD OF HEALTH BENEFITS

**DISCOVER
THE POWER
OF PORCINE
COLLAGEN**



A world of health benefits

The history, value and versatility of porcine collagen - and its exciting potential, for today's health & nutrition market.

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Rousselot
Health & Nutrition

REDISCOVERING PORCINE COLLAGEN

Porcine collagen has a rich legacy: it has been used throughout human history, from helping our distant ancestors to survive in a harsh environment until the present day, in which pork accounts for almost 40% of all global meat consumption and plays a significant role in our diets.

Despite this long history, many people across the world are only just beginning to discover the power of porcine collagen: they are finding that porcine collagen is as strong as collagen from any other source, and an ingredient with a huge wealth of health benefits and application options.

This document explores this claim. By examining the role of porcine collagen in human development, its nutritional significance, and its current global resurgence, it affirms the vital importance of porcine collagen to human diets - and how it deserves to be valued accordingly. In Section II,

the importance of safety, traceability, and standards in porcine collagen sourcing will be considered. By describing the distinct position of EU-sourced pigs and the strict regulations surrounding them, it will be shown that Rousselot's porcine collagen brand, Peptan® P, is fully safe and of the highest quality available on today's market. At the close of this document, you will find recipes that use Peptan P, underlining its versatility and health benefits, helping you to get started with this unique and highly marketable health and nutritional ingredient.

Now is the time to rediscover porcine collagen and integrate it into our lives as part of a healthy lifestyle, following in the footsteps of our ancient forefathers. When harnessed in a premium product like Peptan P, porcine collagen represents the very highest in quality, safety, and versatility - a truly exceptional ingredient.

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PORK, COLLAGEN AND GELATIN: AN OVERLOOKED SOURCE

This section explains what porcine collagen is, looks at its history, and explores how it is currently making an exciting comeback throughout the world. While overlooked in recent times as a health and nutrition source, pork has been a solid and respected part of our diets for many thousands of years.¹

WHAT IS COLLAGEN?

Collagen is a key structural protein that's found in all animals, humans included. Here are some key facts about the body's most important building block:

- It makes up around 30% of the proteins in our bodies.
- Collagen plays a pivotal role in our bodies, ensuring the cohesion, elasticity, and regeneration of our connective tissues.
- The highest concentrations of collagen are found in connective tissues, bones, and skin: in essence, it's the glue that binds everything together.
- This form of unprocessed collagen is known as 'native collagen'.

Native collagen, however, is hard to digest. In order for consumers to take advantage of its natural benefits, it needs to be processed into collagen peptides for bioavailability. This process, known as 'hydrolyzation', involves breaking down the molecular bonds between individual collagen strands, turning them into small peptides, which can then be digested and absorbed by the human body. These peptides can then be used in a wide range of highly beneficial supplements, which can support our health from bone and joint health and anti-aging to fitness recovery and skin beauty.²

PORCINE COLLAGEN: A STAPLE THROUGHOUT HUMAN HISTORY

Pork is one of the most popular meats in the world, accounting for 36% of global meat intake. Many consumers and even manufacturers are unaware of its relationship to collagen and gelatin.³ While you may not have heard of porcine collagen, you'll have probably heard of pork gelatin, a common gelling agent derived from pigs. If you've ever slowly boiled a ham hock or pork shoulder, you may have noticed that the liquid becomes a jelly when it cools: that is a basic form of gelatin. This gelatin is rich in porcine collagen peptides and is more bio-available than native pork collagen. However, pure collagen peptides offer an even higher digestibility.⁴



A favorite for tens of thousands of years

Porcine collagen has played a key role in human nutrition throughout history: archaeological evidence suggests that pigs were among the first animals to be domesticated by early humans.⁵

If you consider that humans have been cooking pork for tens of thousands of years, and that porcine collagen is extracted and made more digestible by the cooking process, it's safe to say that porcine collagen has been a key part of our diets throughout our history.⁶

¹ 'Meat in your diet', NHS (<https://www.nhs.uk/live-well/eat-well/meat-nutrition/>).

² James McIntosh, 'Collagen: What is it and what are its uses', Medical News Today (<https://www.medicalnewstoday.com/articles/262881.php>).

³ 'Sources of Meat', Food and Agriculture Organization of the United Nations (http://www.fao.org/ag/againfo/themes/en/meat/backgr_sources.html).

⁴ Nikita Richardson, 'Wait, What is Gelatin, Anyways?', Bon Appetit (<https://www.bonappetit.com/story/what-is-gelatin>).

⁵ 'Pigs & Pork: A Brief History', D'Artagnan (<https://www.dartagnan.com/history-of-pigs-and-pork.html>).

⁶ 'Cooking - History', Wikipedia (<https://en.wikipedia.org/wiki/Cooking#History>).

⁷ 'Aspic - History', Wikipedia (<https://en.wikipedia.org/wiki/Aspic#History>).

⁸ 'Head cheese', Wikipedia (https://en.wikipedia.org/wiki/Head_cheese).

⁹ 'Aspic - Pork Jelly', Wikipedia (<https://en.wikipedia.org/wiki/Aspic#Asia>).

¹⁰ 'Ukrainian Aspic Recipe (Kholodets)', Natasha's Kitchen (<https://natashaskitchen.com/ukrainian-aspic-recipe-kholodets/>).

¹¹ 'Pâté en croûte', Wikipedia (https://fr.wikipedia.org/wiki/Pâté_en_croûte).



How porcine collagen has evolved

In the struggle for survival, our early human ancestors could not afford to be wasteful. They will have used every part of the pig, including trotters, bones, and connective tissues (such as cartilages), all of which contain high levels of collagen. These parts would have been boiled up to form thick broths and stews, full of all the nutrients needed to live. As civilization progressed, humans discovered that you can extract collagen from thick broths and use it as an ingredient. Eventually, this evolved into aspic, a savory jelly that has become a vital part of all kinds of dishes all over the world.⁷

One such dish was brawn, or 'head cheese', which originated in Europe and quickly spread. Brawn is simply meat, typically pork head-flesh, that's set in aspic. It's then sliced and eaten, hence the name 'head cheese'.⁸ To this day, variations of brawn can be found around the world:


- The Vietnamese have thịt nấu đông⁹
- Russians have kholodets, which is popular at Christmas¹⁰
- In France and Britain, aspic is the jelly in pâté en croute and pork pie respectively^{11, 12}

Aspic isn't the only way to keep this tradition alive. In eastern Asia, pork products are extremely popular, with porcine collagen a key part of Asian diets:

- Okinawans stew their pork slowly, helping to release a healthy dose of collagen¹³
- In Japan, Tonkotsu Ramen, created from pork bones, contains a lot of collagen¹⁴
- In China, pig trotters, which contain a large amount of collagen, are very popular^{15, 16}



AND THE RESURGENCE CONTINUES...



Across the world, porcine collagen continues to take a central place in our lifestyles.

In Japan, collagen peptides are in huge demand as they offer many health and beauty benefits. Many of these supplements are derived from porcine collagen, owing to the prominence of pork in Japanese cuisine.

The worldwide popularity of the Keto diet highlights the resurgence of pork. Fatty meats such as pork belly and rind are a staple of the diet, with consumers – perhaps most notably in the US – turning to crispy pork rinds instead of chips - a great source of porcine collagen.^{17, 18}

Pork belly or rinds are essentially pork skin, the raw material for porcine collagen peptides.

The recent craze for 'bone broth' is another example: like our ancestors, people are using collagen-rich broths as a way of improving their diets. This trend is helping to fuel the comeback of porcine collagen: people are turning towards affordable staples such as pig trotters, bones, and cheeks, and in doing so, are rediscovering just how tasty and nutritious these collagen-rich meals can be.¹⁹

¹² 'Pork Pie', Wikipedia (https://en.wikipedia.org/wiki/Pork_pie).

¹³ Dan Buettner, 'Why Japan's Longest-Lived Woman Hold the Key to Better Health', Huffington Post Blog (<https://www.huffpost.com/entry/okinawa-blue-zone>).

¹⁴ J. Kenji, López-Alt, 'The Food Lab: How to Make Tonkotsu Ramen Broth at Home', Serious Eats (<https://www.serious-eats.com/2012/02/how-to-make-tonkotsu-ramen-broth-at-home-recipe.html>).

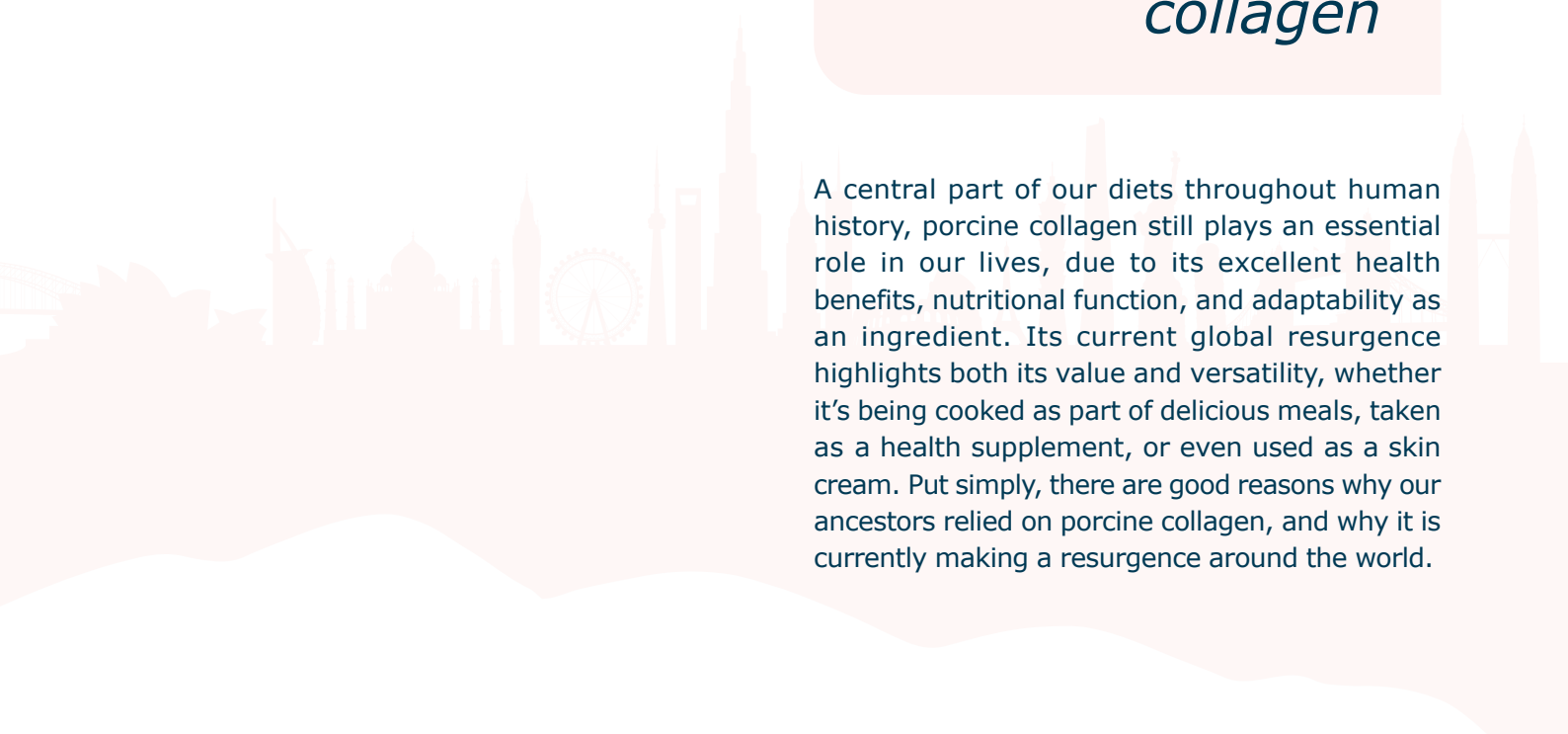
¹⁵ 'The Best and Most Surprising Food for Healthy Skin – Braised Pork Feet', Chinese Foods Recipe (<https://chinesefoodsrecipe.com/the-best-and-most-surprising-food-for-healthy-skin-braised-pork-feet.html>).

¹⁶ 'Pig's Feet and Peanut Soup', Food Mayhem (<http://foodmayhem.com/2011/04/pigs-feet-and-peanut-soup.html>).

¹⁷ Lauren Stuessy, 'New keto menus prove that the diet's taking over NYC', New York Post (<https://nypost.com/2019/05/14/new-keto-menus-prove-that-the-diets-taking-over-nyc/>).

¹⁸ Sam Silverman, '9 Keto-Friendly Easter Recipe Ideas', Health (<https://www.health.com/food/easter-recipe-ideas-keto>).

¹⁹ 'Bone Broth, Broths and Stocks', Nourished Kitchen (<https://nourishedkitchen.com/bone-broth/>).



*It's clear that throughout the world, people are beginning to **rediscover the value** of porcine collagen*

A central part of our diets throughout human history, porcine collagen still plays an essential role in our lives, due to its excellent health benefits, nutritional function, and adaptability as an ingredient. Its current global resurgence highlights both its value and versatility, whether it's being cooked as part of delicious meals, taken as a health supplement, or even used as a skin cream. Put simply, there are good reasons why our ancestors relied on porcine collagen, and why it is currently making a resurgence around the world.

In the next section: how clean and safe is porcine collagen?

One factor that for a time held back the potential growth of porcine collagen was the notion that it is inferior in comparison to other sources. The next section unravels this notion, looking at the high standards of health, safety, and traceability in porcine collagen peptide production, how EU-sourced pork is the best of them all – and why it makes sense that this vital source of nutrition is reclaiming its rightful position in today's diets and lifestyles.



section 2

SAFETY, TRACEABILITY, AND STANDARDS IN THE PORCINE INDUSTRY

When it comes to nutraceutical ingredients like porcine collagen, the importance of quality, safety, and traceability cannot be emphasized enough. In order to get the cleanest, most effective, and most ethical products, the source must be put through a rigorous quality control process.

SIMPLY THE BEST AND THE SAFEST: THE HIGH QUALITY OF EU PORK SOURCES



Europe is the leading source of porcine collagen that Rousselot manufactures. With strict rules that safeguard the welfare of pigs and rigorous regulations that lead to the highest safety and traceability standards across the board, the EU produces among the safest, cleanest, and most ethical porcine products.^{20,21} Let's take a closer look at the underpinning regulations that make EU porcine the best source.

Feed

Feeding is an integral part of animal rearing: safe animal food is important for the health of the animal, the environment, and for the safety of products from an animal origin. The EU's strict regulations help keep feed clean and natural.²⁰ For example:

- The basis of feeds for pigs are predominantly plant materials like roughage, wheat, maize, corn, and soy
- Nutritional quality is improved by including minerals and supplementary fat and protein sources, usually of plant origin
- In processed animal products, potential hazards are eliminated through production processes like heat treatment
- There is a strict ban on feeding processed animal proteins and by-products and raw meat to pigs



Welfare

The EU Council Directive 2008/120/EC sets standards for pig welfare.^{21,22} Key pork producing countries, such as the Netherlands, France, Germany, the UK, Denmark, Spain, and Poland, maintain strict regulations to meet the highest ethical and safety standards. Examples include managing the use of sow stalls and farrowing crates, the banning of antibiotics for growth promotion, and regulations regarding castration, as well as many more.²⁵

Overall Safety Measures

To uphold strong safety standards in the EU, large regulating bodies have been set up to manage the overall safety of the industry, such as the European Food Safety Authority (EFSA). Alongside this, numerous directives, statements, and regulations have been written, aimed at preserving the highest safety standards throughout the entire industry.

²⁰ Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed

²¹ Council Directive 2008/120/EC : minimum standards for the protection of pigs

²² Council Regulation (EC) No 1/2005: protection of animals during transport and related operations

REGULATION (EC) No 183/2005 Feed Hygiene²⁶

- This regulation ensures that approval can only be given after an on-site visit confirming that the site meets all the infrastructure and equipment requirements
- It states that the water used in feed manufacture shall be of suitable quality for animals
- It also dictates that feed processing and storage facilities, equipment, containers, crates, vehicles, and their surroundings shall be kept clean, alongside effective pest control programs

DIRECTIVE 2002/32/EC Animal Feed²⁷

- This directive states that products intended for animal feed must be sound, genuine and of a quality fit to sell; therefore, they must not represent any danger to human or animal health, as well as to the environment and livestock production
- The directive states that through the increasing sophistication of industry methods, it is possible to detect the residue of undesirable substances that have a negligible impact on animal and human health
- It also states that the presence of undesirable substances must be limited by setting appropriate maximum levels

Adhering to these detailed standards, alongside many others, ensures that EU pork products are the cleanest and safest around, and are fully fit for human consumption.

²³ 'The Safest Pork in the World', Trusted Pork (<http://www.trustedpork.com/european-pork/>).

²⁴ 'Minimum risk for maximum food safety and quality', European Pork (<https://www.europeanpork.eu/#safety>).

²⁵ 'Highlighting the differences – how UK welfare standards compare with our competitors', Pig World (<http://www.pig-world.co.uk/news/highlighting-welfare-differences>).

²⁶ REGULATION (EC) No 183/2005 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 January 2005.

²⁷ Directive 2002/32/EC of the European Parliament and of the Council of 7 May 2002.

SAFETY IN MIND: ROUSSELOT AND PEPTAN P

With more than 125 years history, Rousselot is dedicated to producing high-quality ingredients that are 100% safe and traceable. For the production of Peptan collagen peptides, **we only source porcine material from the European Union.** This means we can offer our assurance of receiving products sourced from the highest quality material and produced under the most stringent safety and traceability measures that exist on today's market. In this section, we highlight the key safety measures that make our porcine collagen peptides, Peptan P, a 100% safe, clean label, and traceable ingredient.

Production and quality

As a trusted partner of major food and pharmaceutical manufacturers around the world, we appreciate the importance of high quality and excellent safety like no other. Peptan P is produced in Rousselot's state-of-the-art factories in Europe, which are certified by international bodies of accreditation: International Featured Standard (IFS), Federal Agency for the Safety of the Food Chain (FASFC), Hazard Analysis and Critical Control Point (HACCP), and many more.

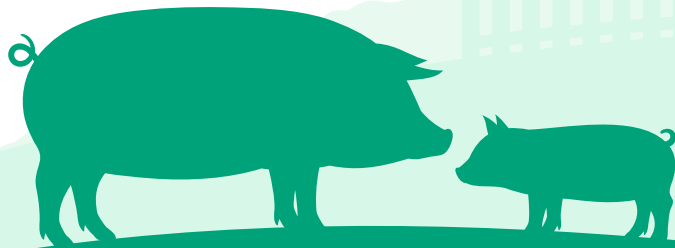
We are a member of Gelatine Manufacturers of Europe (GME), meaning that, alongside other gelatin and collagen peptide suppliers, we are dedicated at improving and standardizing our products, services, and health and safety. We comply with the highest industry standards set forth by GME, including those on ecologically-correct production, sustainability, animal welfare, and more²⁸. **None of the material used to create Peptan P comes from Genetically Modified Organisms, as defined by European Directive 2001/18/EC.**



A WORLD OF HEALTH BENEFITS

*All Rousselot suppliers are audited by us and are required to comply with **our stringent quality and regulatory specifications.***

²⁸ 'GELATINE AND COLLAGEN PEPTIDE PRODUCTION MEETS STRICTEST SAFETY AND QUALITY REQUIREMENTS', GME (<https://www.gelatine.org/gelatine/safety.html>).



statements certifying the safety behind its products. For example:

- 'All porcine raw materials come from establishments registered by the European Union'
- 'Rousselot exclusively sources its raw materials from authorized establishments providing animals fit for human consumption, inspected by veterinarians as well as compliant with all the relevant best practices, methods and regulations that pertain to the welfare of animals. Furthermore, all suppliers are audited by Rousselot and are required to comply with our stringent quality and regulatory specifications.'
- 'We certify that Collagen is produced with pig skins deemed fit for human consumption.'

100% of the pigs used to produce Peptan P were raised domestically in Europe. By exclusively sourcing our porcine material from the European Union, we offer our customers the certainty that **we are working with safe, clean and high quality raw materials available** on today's market produced under rigorous safety and traceability measures.

ACCREDITATION AND REGULATION

Peptan P as collagen peptides are safe. Collagen peptides have been confirmed by major regulating bodies:^{29,30,31}

- Generally Recognized as Safe (GRAS) in the US
- The World Health Organization (WHO)
- The European Food Safety Authority (EFSA)

In addition, Peptan collagen peptides are regulated in the EU by the regulation (EC) No. 853/2004, which covers all aspects of production from the raw materials to the final product.

Traceability

When dealing with animal materials, traceability is exceptionally important. Traceability is the ability to track any individual product or substance through each stage of its production, processing, and distribution line. A high degree of traceability helps ensure that products containing animal material are fit for human consumption. Plus, it helps to manage potential risks and keep each production segment accountable for its safety procedures.

Rousselot takes the utmost care with its choice of raw materials and its suppliers, submitting them to strict quality control and audit programs. For us, demonstrable traceability is a vital part of our field; for all Peptan P batches, we are able to trace back within four hours of where the material was sourced. Through this, we can ensure that our products are of the highest

²⁹ SCOGS-Report Number: 58; 1975, ID Code: 9000-70-8, 21 CFR Section.

³⁰ US FDA: Title 21-Food and Drugs- Chapter I-Food and Drug Administration- Subchapter B- Food for Human Consumption (continued)- Part 184-subpart B- Listing of Specific substances affirmed as GRAS- SEC.184.1553 Peptones.

³¹ Opinion on safety on safety of collagen and a processing method for the production of collagen. The EFSA Journal (2005) 174, 1-9

Strict quality control sensory testing panels

Our experts implement specific R&D innovation and strict quality procedures to ensure that Peptan P is neutral to the senses, resulting in consumer products that taste great. This is achieved through two levels:

- With our manufacturing expertise, we avoid the formation of undesirable substances that may affect taste and odor
- Our Quality Control Laboratory has set up a full sensory panel, similar to those used in the flavorings industry. Through this expert panel, we can maintain the Peptan properties, ensuring that our commercial products meet our customer expectations. With this recognized evaluation method for organoleptic properties, we can produce a versatile, neutral, and easy-to-use ingredient

*We are able to trace back the origin of all Peptan P batches **within four hours of where the material was sourced***



section 3

WHAT DOES PEPTAN[®] P OFFER?

Peptan P is a premium bioactive collagen peptide ingredient, sourced from the best EU-raised pigs. 100% safe, natural, and traceable, Peptan P is a clean label ingredient that offers a broad range of scientifically-backed health benefits, from healthy aging and joint & bone health to skin beauty and sports nutrition. Here are four fundamental elements behind Peptan P:

Trust

- A premium bioactive collagen peptide ingredient, produced with a carefully controlled enzymatic hydrolysis with high bioavailability
- Only produced from the highest quality of raw materials
- Backed up by substantial scientific evidence
- Produced by the world's leading collagen peptide manufacturer
- Recognized globally for high quality and health benefits

Versatility

- Easy to integrate, without affecting taste, texture, or mouthfeel
- No limit to potential applications, cold water soluble: from food and sports drinks to powder and gummies
- Can be added to home-cooked dishes for a powerful health boost – for some ideas, take a look at our list of recipes in the next section

Quality and safety

- Produced in the state-of-the-art IFS and HACCP certified plants.
- Sourced from the best EU animals
- Certified by major regulating bodies: Generally Recognized as Safe (GRAS) in the US; European Food Safety Authority (EFSA) in Europe; and the global World Health Organization (WHO)
- 100% traceable to within four hours from source
- A clean label ingredient, free from any preservatives or additives
- Subject to strict quality control and audit programs
- Do not come from and are not produced from Genetically Modified Organisms (GMO)

Expert support

- Our expert R&D and application teams based in Ghent will support you, helping you to tailor your product to the market
- Our world-class expertise center in Ghent can help you perfect your formulation, finding healthier solutions through innovation
- Creative product and application solutions
- Science and nutritional advice
- Formulation optimization, keeping the consumers in mind
- Regulatory support



CONCLUSION: REDISCOVERING PORCINE COLLAGEN PEPTIDES WITH PEPTAN P

Pork has played a key role in human nutrition throughout history. For our ancient ancestors, porcine collagen was essential: it helped them survive, thrive, and eventually spread throughout the world.

Today, porcine collagen is quickly regaining its status as a powerful ingredient offering outstanding health benefits: whether cooked as part of a hearty meal or used for its effect on beauty or mobility, porcine collagen is an exceptional source. Similarly, porcine collagen is as safe as any other collagen source, especially when subject to the highest health and safety standards. The current resurgence of porcine collagen, then, does not come as a surprise. Now is the time to rediscover porcine collagen and its quality, safety, versatility and to integrate it into our diets and lifestyles. Peptan P brings together the very best of this remarkable product's properties, offering manufacturers and consumers a truly premium porcine collagen ingredient.

At Rousselot, we are dedicated to producing only the best and safest ingredients. For this reason, Peptan P are made with EU-sourced pigs – the safest and highest in quality worldwide. Rousselot's state-of-the-art factories, compliance with strict regulations, devotion to full traceability, make Peptan P 100% safe, clean-label, and traceable – vital in today's world. With scientifically-backed health benefits, you can be assured of its value. With neutral taste and odor, and its excellent solubility, Peptan P is in powder form and you can integrate it into any application without disturbing the taste, texture, or mouthfeel – giving your product a solid health boost with no drawbacks. For home cooking, too, Peptan P offers a versatility that other products can't match. With its quality, safety, and versatility, Peptan P is the premium porcine collagen – and the perfect product with which you can start your journey with porcine collagen.



Did you know
that Peptan IIm,
Hydrolyzed Collagen
Type II Matrix also exists
in porcine version that
comes from the EU?

**Extracted from
natural sources,**
Peptan IIm is a unique
hydrolyzed cartilage
matrix that contains
hydrolyzed collagen
Type II in the form of
bioactive peptides and
glycosaminoglycans -
chondroitin sulfate and
hyaluronic acid. Peptan
IIm can simultaneously
support multiple joint
health benefits at a low
daily dosage.

**Visit peptaniim.com to
find out more!**



FAQS

What is the difference between collagen, gelatin and collagen peptides?

Native collagen is composed of large triple helix chains of amino acids and strengthens the structure of our body. It is not soluble. Gelatin is obtained by partial hydrolysis of collagen. This process occurs when collagen triple helices are broken down to the point where they are pulled apart into individual strands. Gelatin will only dissolve in hot water, and will jellify when it is cooled (this is the same gelatin you would get in the bone broth you prepare at home). When gelatin is hydrolyzed even further, those individual strands of protein are broken down into small peptides of amino acids. Collagen peptides are soluble in cold water, highly digestible and ready to be absorbed by our bodies.

Are the health benefits offered by porcine collagen peptides different from those of collagen peptides from other sources?

The benefits offered by porcine collagen are the same as those from other sources. When collagen is hydrolyzed, whether it's from porcine, fish, or bovine sources, the triple helix is rendered into short- and medium-sized peptides as well as amino acids that are highly digestible, absorbable and bioavailable. The absorbed collagen peptides and amino acids appear one hour after ingestion in the blood reaching targeted tissues such as bone, cartilage, and skin.^{32,33} Furthermore, multiple scientific studies using porcine collagen peptides have highlighted significant health benefits, such as skin beauty and bone health.^{34,35,36,37,38,39}

³² Rousselot data, 2007.

³³ Rousselot data, 2013.

³⁴ Asserin, J. et al., 2015. The effect of oral collagen peptide supplementation on skin moisture and the dermal collagen network: evidence from an ex vivo model and randomized, placebo-controlled clinical trials. *Journal of Cosmetic Dermatology*, 14:291-301. doi: 10.1111/jocd.12174.

³⁵ Guillerminet, F. et al., 2010, Hydrolyzed collagen improves bone metabolism and biomechanical parameters in ovariectomized mice: An in vitro and in vivo study. *Bone*, 46:827-834.

³⁶ Guillerminet, F. et al., 2012, Hydrolyzed collagen improves bone status and prevents bone loss in ovariectomized C3H/HeN mice. *Osteoporosis International*, 23(7):1909-1919.

³⁷ Daneault, A. et al., 2017, Biological effect of hydrolyzed collagen on bone metabolism. *Critical Reviews in Food Science and Nutrition*, 57(9):1922-1937.

³⁸ Global Industry Analysts, Inc., *Gelatin a Global Strategic Business report*, June 2018.

³⁹ Wauquier, F. et al. 2019, Human Enriched Serum Following Hydrolysed Collagen Absorption Modulates Bone Cell Activity: from Bedside to Bench and Vice Versa. *Nutrients* 11: 1249

Do porcine collagen peptides have a strong taste or odor?

Absolutely not, all Peptan collagen peptides are neutral in taste and odor regardless of the source. Peptan P undergoes several purification steps, which are monitored under several purification steps, which are monitored under strict quality procedures to ensure that it's neutral to the senses, resulting in consumer products that taste great.

How do I know which porcine collagen product I should choose?

It is important to ensure that you choose the products containing collagen ingredients that come with a quality and safety guarantee. The easiest way is to look for collagen peptides from a renowned collagen supplier.

Rousselot is the world's leading gelatin and collagen peptides producer. Founded in 1891, Rousselot has perfected their ingredients over time, gaining invaluable market experience along the way. With Rousselot's Peptan, you can be sure that your product is of the highest quality and 100% safe, thanks to our quality and performance indicators.





section 4

RECIPES **WITH PEPTAN® P**

Cereal Bar with Peptan P Collagen Peptides

A delicious and healthy snack, this cereal bar can help you maintain youthful, healthy-looking skin. The Peptan Collagen Peptides can rejuvenate your skin from the inside by improving collagen network and skin hydration levels, which is supported by natural antioxidants from goji berries (beta-carotene), raisins, pistachios and hazelnuts (vitamin E). All-in-all, a tasty treat with added health benefits!

Ingredients (for 12 bars, or 500g)

Honey	50g
Sugar	23g
Water	24g
Peptan P Collagen Peptides	29g
Icing sugar	46g
Coconut oil	7g
Muesli with 41% fruit, nuts, and seeds	140g
Hazelnuts	48g
Dried goji berries	48g
Pistachios	48g
Dry golden raisins	33g

Step-by-step

1. Heat the honey and sugar in a pan with water, stirring until everything has dissolved
2. Remove from the heat, add icing sugar, then Peptan. Mix and stir well
3. Heat the coconut oil in the microwave until it becomes a liquid. Add it to the mix and continue to stir
4. Add the muesli, nuts and dried fruits and mix in a bowl
5. Spread the mix onto a greased plate and roll it flat with a rolling pin. Let it rest overnight at room temperature
6. Cut into bars and store in a box



Nutritional Facts

	Per Bar (40g)
Energy	158 kcal / 663 kJ
Fat	5.6g
of which – saturates	1.0g
Carbohydrates	21g
of which – sugar	15g
Fibre	2.1g
Protein	4.8g
Salt	0.03g
Vitamin E	0.77mg

Contains allergens:

wheat, oats, barley, hazelnuts, almonds, pistachio nuts, soybeans

Almond Cookie with Peptan P Collagen Peptides

A delicious cookie with skin-beauty and mobility benefits. This guilt-free treat contains 15% Peptan collagen peptides, which are proven to promote skin beauty and provide support to your flexibility.



Ingredients (for 35 cookies, or 500g)

Whole-wheat flour	135g
Peptan P Collagen Peptides	85g
Corn starch (Maizena)	60g
Golden caster sugar	38g
Table sugar (sucrose)	33g
Baking powder	8g
Butter	55g
Almonds (chopped)	85g
Almond flavoring	A few drops
Eggs	2

Step-by-step

1. Mix the Peptan, whole-wheat flour, starch, golden caster sugar, table sugar, and baking powder in a bowl
2. Add the eggs and stir well
3. Melt the butter in a pan or microwave and add it to the bowl and mix
4. Add the almond extract and chopped almonds
5. Mold into dumplings and place onto a baking sheet covered with baking paper
6. Press the dumplings flat and bake them for 9 minutes in a preheated oven at 180°C
7. Store in a closed box after cooling down

Nutritional Facts

Per 3 cookies (42g)

Energy	191 kcal /800 kJ
Fat	8.4g
of which – saturates	2.9g
Carbohydrates	18g
of which – sugar	6.3g
– starch	11g
Fibre	2.2g
Protein	9.7g
Salt	0.2g

Contains allergens:

gluten, eggs, milk, almonds

Collagen Jelly with Peptan P Collagen Peptides and gelatin leaves

Discover Peptan's health benefits through this marvelous jelly! This high-protein dessert contains 5% Peptan collagen peptides, which provide healthy-aging benefits and promote skin-beauty, while being a delicious treat – what more could you want?



Ingredients (for 250g)

Gelatin leaves	2 ½ leaves
Cold water (for swelling gelatin leaves)	1 bowl
Peptan P Collagen Peptides	13g
Water	170g
Lime juice	7.5g
Strawberry syrup	60g

Step-by-step

1. Soak the gelatin leaves in cold water in a separate bowl until they swell (this water is only used for swelling; it is not an ingredient)
2. Dissolve the Peptan in water in a pan and whisk
3. Add lime juice and strawberry syrup, then mix
4. Heat the mixture in a pan on medium heat, then squeeze the water out of the gelatin leaves and add them into the solution while stirring. Mix until the gelatin leaves are dissolved. Be careful not to cook the gelatin leaves
5. Pour in cups and let it set in the fridge for 24 hours

Nutritional Facts

	Per portion (125g)
Energy	148 kcal / 620 kJ
Fat	0g
of which – saturates	0g
Carbohydrates	29g
of which – sugar	29g
Protein	8.1g
Salt	0.1g

Dairy Drink with Peptan P Collagen Peptides

A delightful drink to enjoy everyday, with the added benefits of Peptan P. The dairy drink is a popular recipe for creating healthy, low-fat, high-protein beverages. By formulating dairy products with Peptan, you get the added benefits of two protein sources: collagen peptides as a bioactive protein and milk proteins. Peptan has been proven, through scientific studies, to support both joints and bones. Natural calcium complements the protein action to maintain muscle mass.

Ingredients (for 5 glasses, or 1 liter)

Peptan P Collagen Peptides	100g
Sugar	60g
Skimmed milk	835g
Flavoring of your choice (strawberry, chocolate etc)	A few drops

Step-by-step

1. Pre-mix the Peptan and sugar in a bowl
2. Mix the blend into a bowl of milk, while whisking
3. Add flavoring to the drink and stir
4. Store in the fridge and serve with your favorite fruits



Nutritional Facts

Per portion (20cl)

Energy	176 kcal / 737 kJ
Fat	0g
of which – saturates	0g
Carbohydrates	20g
of which – sugar	20g
Protein	24g
Salt	0.5g
Calcium	214mg

Contains allergens:

milk

Dairy Shot with Peptan P Collagen Peptides

A sweet probiotic drink to help digestion and maintain bone health. This fresh, high-protein, treat packs in all that is good for your bones! Peptan helps to build the bone matrix, while kefir offers digestive and gut-health benefits.



Ingredients (for 5 glasses, or 1 liter)

Peptan P Collagen Peptides	50g
Sugar (sucrose)	20g
Semi-skimmed milk	925g
Kefir-ferment (lactic acid bacteria & yeasts)	5g

Step-by-step

1. Mix Peptan and sugar into a pan with cold milk, before whisking
2. Heat the mixture for a few minutes (not boiling) in a pan, before cooling down to room temperature
3. Add the kefir-ferment while stirring with a plastic or wooden spoon
4. Put the liquid in an airtight pot and place in the dark at room temperature for 24 hours
5. Place in the fridge and leave for 1 day after maturation
6. After maturation, stir the fermented milk well with a plastic or wooden spoon - soon, it will become a drinkable yoghurt! Be sure to store in the fridge

Nutritional Facts

	Per portion (20cl)
Energy	140 kcal / 586 kJ
Fat	3.0g
of which – saturates	1.8g
Carbohydrates	12.8g
of which – sugar	12.8g
Protein	15.4g
Salt	0.3g
Calcium	226mg

Contains allergens:

milk

Panna Cotta with Peptan P Collagen Peptides and gelatin leaves

Enjoy the benefits of Peptan with this smooth, sweet dessert. The Rousselot gelatin leaves are a stabilizer which gives the Panna Cotta a luscious, smooth texture with a pleasing mouthfeel. If you want a heavenly dessert with the health benefits to match, this one's for you!



Ingredients (for 2 servings, or 250g)

Gelatin leaves	1 ½ leaves
Cold water (for swelling gelatin leaves)	1 bowl
Peptan P Collagen Peptides	13g
Sugar (sucrose)	17g
Whole cream (full fat)	170g
Skimmed milk	44g
Flavoring – vanilla	A few drops

Step-by-step

1. Soak the gelatin leaves in cold water until they swell (this water is only used for swelling; it is not an ingredient)
2. Mix the Peptan and sugar into a pan with the cold cream and milk, while whisking
3. Heat the pan for 10 minutes, being careful not to boil, whilst stirring. Squeeze out the gelatin leaves and add them to the solution and stir until the gelatin has dissolved.
4. Add flavoring
5. Place the solution in cups before storing in the fridge for setting. Wait at least 24 hours before serving


Nutritional Facts

	Per portion (20cl)
Energy	371 kcal / 1553 kJ
Fat	31g
of which – saturates	20g
Carbohydrates	13g
of which – sugar	10g
Protein	10g
Salt	0.08g
Calcium	14mg

Contains allergens:

milk

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Rousselot Health & Nutrition

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