



Peptan® bioavailability: where a world of potential begins

What is bioavailability, and why does it matter?

When it comes to collagen peptide supplements, absorption is important. To enter the bloodstream and become bioavailable, large molecules such as collagen proteins have to be broken down into di- and tripeptides and free amino acids. This process is crucial to ensure that they are delivered to the right tissues and to maximize the benefits of dietary supplements.

Peptan: Bioavailability backed by science

Not all collagen peptides are created equal. At Rousselot, we leverage decades of sourcing knowledge, expertise in enzymatic hydrolysis, and in-depth scientific exploration into the production of Peptan: the brand that sets the standard for versatile, high-quality collagen peptides with research-backed benefits.

Key facts you need to know:

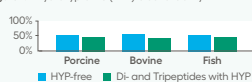
- Hydroxyproline (HYP), an amino acid primarily found in collagen, was used as a key marker for collagen intake
- The presence of HYP in the blood following Peptan consumption demonstrates Peptan's overall bioavailability¹
- 57%** of total bioavailable HYP was present in the form of free amino acid and **43%** as bioactive di- and tripeptides²
- Free amino acids can be used by the body as building blocks to produce new proteins³⁻⁵
- Di- and tripeptides operate as bioactive messengers¹² essential to support many physiological processes from beauty, mobility and sports recovery to gut comfort and more⁶⁻¹⁴
- These bioavailability results remain consistent throughout all Peptan products, regardless of the specific animal source or molecular weight²

Three studies, one conclusion

Study 1: This first bioavailability study showed that ingesting Peptan gave rise to increased levels of di- and tripeptides containing hydroxyproline (PRO-HYP and HYP-GLY) in the blood.¹

Study 2: Research confirmed that levels of HYP-free and HYP containing di- and tripeptides increased significantly in the bloodstream after a single dose, regardless of Peptan source – porcine, bovine and fish [Figure 1].²

Figure 1: Hydroxyproline (HYP) bioavailability



Study 3: Exploring the impact of molecular weight (MW) on bioavailability, it was shown that HYP-free [Figure 2] and other key bioavailability markers (PRO-HYP, HYP-GLY and GLY-PRO-HYP) in the bloodstream remained similar for both MW (2000 and 5000 Dalton)² following the consumption of Peptan [Figure 3].

Figure 2: HYP-free bioavailability

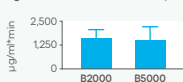
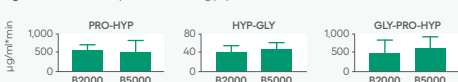


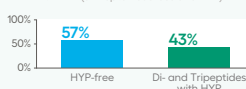
Figure 3: Bioavailability of HYP-containing peptides



B = bovine

The bottom line: Regardless of animal source or molecular weight, Peptan is efficiently absorbed and delivers essential amino acids and di- and tripeptides to the places they're needed most throughout the body [Figure 4].

Figure 4: Average of HYP-free and di- and tripeptides with HYP (all Peptan sources and MW)



Making it real: The market potential of bioactive collagen

Collagen peptides are a big deal – for our bodies and for the global health and wellness market:

>10.4% CAGR

is predicted for the collagen peptide market in the next 4 years¹⁵

>50%

of global consumers find collagen appealing¹⁶

61%

associate collagen with a positive impact on their health¹⁷

Collagen ingredients with demonstrated bioavailability are the key that unlocks these undeniable market opportunities.

Harness a world of potential with the bioactive benefits of Peptan



Skin and hair beauty^{6,7,10}



Mobility enhancement (bone & joint)^{8,9}



Sports nutrition¹²



Active lifestyle support^{8,9,12}



Healthy aging^{6,7,8,12}



Gut comfort^{11,13}



Improved sleep quality¹⁴



Cognitive performance¹⁴

Maximum potential, maximum value

The ultimate peptide ingredient for holistic well-being, delivered by the leader in collagen science. Rousselot helps you innovate and deliver the quality solutions consumers expect through:

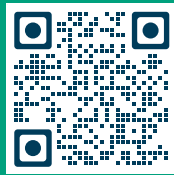
- Transparency and traceability
- The highest standards of quality and safety
- Upcycled Certified® accreditation
- A strong commitment to sustainability
- Global support and expert advice

Fundamental science that supports Peptan and its world of potential.

Learn more about Peptan

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More about Rousselot and its locations



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