

Exclusive Services for Cosmetic Peptides



Peptides are popular active ingredients for [cosmetic](#) products called cosmeceuticals. Peptides help maintain a healthy and youthful appearance as demonstrated by numerous dermatological studies. They are particularly of interest for anti-ageing applications due to their ability to increase the production of dermal extracellular matrix proteins such as collagen. Furthermore, researchers have shown that several peptides have the ability to promote wound healing, cell migration, and angiogenesis¹.

Bachem is the leading contract development and manufacturing organization (CDMO) for peptide and oligonucleotide manufacturing. We have long-standing partnerships with major firms in the pharmaceutical and cosmetic industry. With our experience and dedication, we drive innovation for sustainability and CMR-free (CMR: carcinogenic, mutagenic, or toxic for reproduction) products. We provide cosmetic peptides in an excellent and consistent quality from small to large-scale production at competitive prices

Quality and experience to exceed industry standards

Cosmetic product consumers expect the product promise to be fulfilled, i.e. the peptide ingredient to be active and safe on their most important exterior, the skin. At Bachem, we established the [Bachem Quality Grade](#) to meet our cosmetic industry partners' needs and to comply with the current regulatory standards and expectations for cosmetic ingredients. We are the perfect partner for high-quality raw materials with comprehensive change and deviation management, ideal for the regulated field of cosmetics. Our quality commitment to our customers does not stop at the manufacturing of the peptides. After the production, we make sure that our customers' peptide is stored and delivered in the proper conditions to keep its potency as an active ingredient. Thus, we guarantee a sustainable supply of raw materials for various cosmetic formulations.

With the Bachem Quality Grade, our customers benefit from exclusive services for their cosmetic peptides:

- Traceability throughout the complete supply chain
- Dedicated compliance team responsible for quality management and release
- Change control for manufacturing processes, analytical methods and for specifications
- Detailed deviation management
- Manufacturing according to established processes using qualified analytical equipment
- TSE/BSE certificate (Transmissible spongiform encephalopathies/ Bovine spongiform encephalopathy)
- No usage of GMOs (genetically modified organisms)
- CMR-free synthesis possible

Our long-standing experience in peptide manufacturing ensures the peptide-based active ingredient is produced to meet cosmetic market needs from small to industrial

scale production. Throughout the years, we established reliable long-term partnerships with our suppliers and distributors ensuring a secure supply chain for our customers.

Innovation for more responsible and greener cosmetic peptide production

Innovation in more environmentally friendly peptide production methods is of utmost importance to reduce our impact and to offer solvent-free product. At Bachem, we offer the Molecular Hiving™ technology, which is a tag-assisted liquid-phase peptide synthesis technology developed by Professor Kazuhiro Chiba at the Tokyo University of Technology and Agriculture. This technology is especially suitable for the synthesis of peptidic ingredients for cosmetic products, as CMR solvents and reagents can entirely be avoided during the manufacturing process. Molecular Hiving™ also allows a fast synthesis of peptides similar to SPPS with a lower consumption of solvents and reagents. Impact on health and environment is reduced which makes it highly attractive for the cosmetics industry. This technology enables the consumer to be provided a safe product.

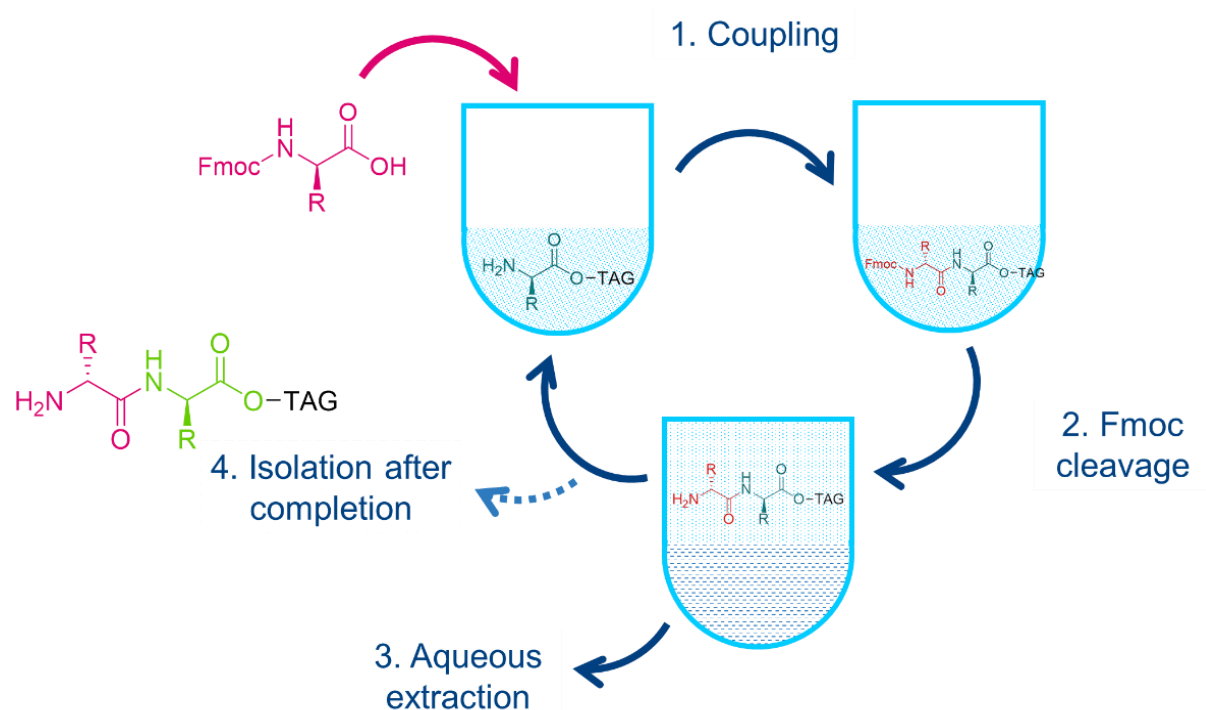


FIGURE 1 – THE MOLECULAR HIVING™ SYNTHETIC PROCESS

Molecular Hiving™ uses a hydrophobic tag onto which the peptide is assembled in the same way as onto the resin in solid-phase peptide synthesis (SPPS) using the standard Fmoc-amino acid derivatives. After each coupling, reagents, excess amino acid derivatives and by-products are removed by aqueous extractions. After synthesis

completion, the protected peptide is isolated by precipitation. The reactions are carried out in solution, which has the advantage of more efficient mass transfer, faster reaction rates and less impact of protein folding and steric hindrance. Compared to SPPS, Molecular Hiving™ allows efficient coupling with only slight excess of reagents. A direct monitoring of couplings and Fmoc deprotection steps is possible by HPLC.

Watch our webinar on molecular hiving™

Watch the full presentation exclusively on [Bachem360](#).

Visit the Research and Specialties section inside the [live area](#).

Bachem and our partner Jitsubo CO., LTD. signed of an exclusive Licensing Agreement for Jitsubo's Molecular Hiving™ technology. Under the License agreement, Jitsubo develops selected manufacturing processes using their Molecular Hiving™ technology and transfers these processes to Bachem. Further optimization, scale up and production for commercial applications is done at Bachem.

Sustainability with our ecovadis gold award and rspo certification in 2022

Sustainability is a key strategic foundations for Bachem. We are committed to sustainability by taking responsibility towards our employees, the society, and the environment. In 2022, we were awarded a gold medal rating for sustainability by [EcoVadis](#). This award puts Bachem among the 5% most sustainable companies assessed by EcoVadis.

Additionally, we also received the RSPO (Round Table of Sustainable Palm Oil) certification - a supply chain standard that allows Bachem to handle sustainable palm oil and palm kernel oil for our manufacturing site in Bubendorf. As part of the RSPO certification, we are also compliant in the maintenance of a mass balance of the input-output quantities of certified products. With our initiatives for sustainability, we deliver a certified cosmetic peptide to our customers, ensuring a sustainable supply chain to the end-consumer.

Your perfect partner for cosmetic peptides

Bachem is the market leader in the production of peptides and oligonucleotides. We are well-equipped for small to industrial scale synthesis of peptides of any complexity. Providing a full range of services to the pharma and biotech industries, we enable our customers, in a spirit of partnership, to improve health.

Our innovation and quality grade serve the best our customers to provide consistent high-quality peptides. To this end, we tap into new technologies like Molecular Hiving™ and implement high industry standards. We are committed to our customers and ultimately end-consumers to provide CMR-free products and to comply with the regulatory requirements.

Bachem is therefore the ideal partner in the development and production of cosmetic peptides. Together with our customers, we accomplish each of the demanding steps in a development project, ultimately leading to a successful cosmetic product.

About Bachem

Bachem is a leading, innovation-driven company specializing in the development and manufacture of peptides and oligonucleotides.

With over 50 years of experience and expertise Bachem provides products for research, clinical development and commercial application to pharmaceutical and biotechnology companies worldwide and offers a comprehensive range of services.

Bachem operates internationally with headquarters in Switzerland and locations in Europe, the US and Asia. The company is listed on the SIX Swiss Exchange