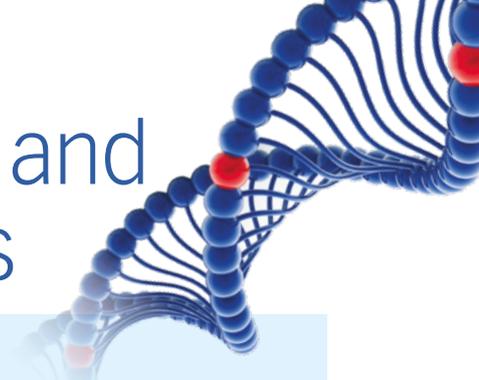


Our peptide development and manufacturing capabilities



About Aspen Oss

Aspen Oss has a proud history of almost 100 years in the production of complex, highly potent APIs (HPAPIs). We work from a deeply rooted and pro-active quality culture. Our facilities are successfully inspected and approved by governmental authorities such as the US FDA, EMA, PMDA, and others. We offer our customers a true partnership by consistently delivering high product quality on schedule. Aspen provides you extensive support at all stages of the project: from proof of concept forward through registration and commercialization.

Building on +50 years of peptide experience

With more than 50 years of peptide experience, we have built a strong reputation by producing cGMP peptides with batch to batch reproducibility combined with high yields and high purity profiles. Aspen Oss is an active member of APIC and directly involved in discussions within EMA, US FDA, EDQM and ICH.

Our peptide capabilities

- Stainless steel and glass-lined reactors ranging from 100 to 1500 liters
- Liquid (solution) Phase Peptide Synthesis (LPPS)
- Solid Phase Peptide Synthesis (SPPS)
- Green Continuous Liquid Phase Peptide Synthesis (GC-LPPS)
- Preparative HPLC columns up to 45 cm
- 100 liter tray lyophilization

Choosing the most efficient synthetic route for your product

We have extensive know-how of and experience in both solution and solid-phase synthesis. In addition we have developed a patented method for a green and large-scale manufacturing of peptides in solution called Green Continuous Liquid Phase Peptide Synthesis (GC-LPPS).

GC-LPPS combines the advantages of the classical solution-phase synthesis with the solid-phase approach, and is characterized by the fact that intermediates are not isolated. This enables a highly efficient synthesis method that is easy to scale up and yield products of reproducible high purity.

Our strong technical capabilities coupled with our extensive expertise in regulatory science and SHE enable to help you define the most efficient and safe route of synthesis for your product and ensure strong regulatory support through registration.

Key Product Development Parameters		Determined by	GC-LPPS	LPPS	SPPS
Time-to-market	Route development	Amenable to a generic protocol	✓	-	✓
	Scale-up & validation	Homogeneous synthesis	✓	✓ / -	-
Manufacturing efficiency	Materials	Cycle times	✓	-	✓
		Reagent excess minimized	✓	✓	-
		Minimal side-chain protection	✓ / -	✓	-
		No solid support	✓	✓	-
Product quality assurance	High purity	No insertion sequences	✓	-	✓
		No deletion sequences	✓	✓	-
		No side-chain reactions	✓	-	✓
	Reproducibility	Reproducible isolations	n.a.	-	n.a.
Reproducible supports		n.a.	n.a.	-	
Environmental demands	Organic waste streams	No solvent changes	✓	-	✓
		No organic washings	✓	✓	-



We welcome you to contact us and to find out more about our peptide capabilities.