





Synthetic Peptides are finding increasing use as therapeutics, diagnostics, for antibody production, and as tools for understanding biological processes. Neuland's peptide synthesis services include production of peptides from milligrams to few-kilogram scale by standard sequential chemical peptide syntheses and segment condensation strategies.

Most peptides between five to sixty amino acids are produced by standard solid phase peptide synthesis (SPPS) procedures. Multiple kilos of shorter length (up to 9 amino acids) are produced by solution phase methods. For longer peptides, containing up to 120 amino acids, segment condensation and ligation techniques are employed.

Neuland has expertise in both solution phase and solid phase synthesis methodologies. We have recently produced 35 kg of a Decapeptide NCE cGMP for a US based company by solution phase segment condensation of two pentapeptide key starting materials. The N-terminal KSM utilized a pseudoproline at its C terminus.

These aforementioned abilities enable Neuland to offer the highest quality peptide products at competitive prices.

## **Capabilities**

# Synthesis of Peptide APIs, NCEs & Other Services

- cGMP manufacture of peptide APIs, NCEs, and impurities
- Process development; route scouting; optimization & validation; and impurity profiling
- Large scale manufacture of complex amino acids and Fmoc-building blocks such as Pseudoprolines, Isoacyl Peptides, Dmb-derivatives, N-Methyl amino acids, etc.

#### **Drug Development Support**

- Supply of material for clinical trials
- Scale up from lab to pilot to commercialisation for hybrid molecules
- Scale up from lab to plant on SPPS

#### **Analytical R&D**

- Analytical method development and validation
- Impurity profiling, isolation and Characterization
- Stability studies
- Supply of analytical reference standards
- Peptide characterization using 600MHZ NMR, LC-MS MS and other Physicochemical properties

#### Regulatory Support

Filing DMF with the appropriate regulatory agencies



## Peptide APIs Custom Peptides FMOC/Z - Building Blocks

## **Neuland's Peptide World**

From building blocks to commercial production of peptide APIs

Process R&D Center	Aid in Drug Design and Analog Synthesis	Custom Process Development
Intermediates and Peptide Fragments	Novel Routes for Synthesis	Supply of protected Amino Acids and Building Blocks
Manufacturing Services	Scale up supply of Clinical Trial Material	Scale up from Lab to Pilot and Commercialization for hybrid molecules Scale up from lab to plant on SPPS
Analytical and Regulatory Support	Analytical Method Development and Validation	Impurity Profiling, Validation Analytical Reference Standards
Generic Peptide API Manufacturing	cGMP Manufacturing of Peptide APIs with Regulatory Support	

#### We request our customers in North America contact

#### Saradhi Bolli

Vice President -Business Development, USA Mobile: +1 732 789 8983 Email: saradhi@neulandlabs.com

#### We request our customers in **Europe & ROW contact**

#### Nicola Giubellina

Vice President -Business Development, Europe Mobile: +41 75 429 9008 Email: nicola@neulandlabs.com



### **Core Expertise**

- Solution Phase Synthesis
- Solid Phase Synthesis
- Hybrid Technology for **Complex Peptides**

Demonstrated expertise in the manufacture of Peptide APIs (5-50 AAs) using solution Phase and hybrid technologies.

Difelikefalin Leuprolide, Octreotide and Eptifibatide (solution synthesis

Semaglutide, Liraglutide and Tirzepatide (hybrid technology products). Evaluation samples available on request.

Your partner for developement and cGMP manufacture of Fmoc building blocks (Isoacyl Dipeptides, N-Methyl amino acids, Azido and other high value amino acids.)

## **List of Building Blocks**

- Isoacyl Dipeptides
- Dmb Derivatives
- Hmb Derivatives
- Lysine Derivatives
- N-Methyl Amino Acids

#### **Other Products**

30- Pseudoprolines

India Corporate Office | Tel: +91 40 67611600 USA Office | Tel: +1 (888) 617 958 Europe Office | Tel: +41 75 429 9008 Japan Office | Tel: +81 3 3526 5171

For more information, please write to us at marketing@neulandlabs.com

www.neulandlabs.com







Generic Drug Custom Manufacturing