

Peptide Synthesis

Capabilities and Experience in Peptide Chemistry



Unlocking the Potential of Peptide Synthesis

At o2h discovery, we are dedicated to advancing scientific research and drug discovery through exceptional peptide synthesis services. Our team specializes in producing a wide range of peptides, from milligram to gram scale, ensuring high-quality, customized solutions for your research needs.

Our Peptide Platform

state-of-the-art facility for peptide purification and characterization.

Rapid peptide library generation for screening

Master in solid and solution phase synthesis for complex peptides

Capable to generate up to 50-mer linear and cysteine-rich disulfide-bridged peptides

Experience in high-quality peptide delivery

Syros I synthesiser for simultaneous solid-phase synthesis of up to 24 peptides

Peptide Modification

We offer a large variety of peptide modification including but not limited to the following

- ✓ Branched Peptides
- ✓ Acetylated Peptides
- ✓ Succinylated Peptide
- ✓ Cyclic Peptides
- ✓ Stapled Peptides
- ✓ PEGylated Peptides
- ✓ Citrullinated Peptides
- ✓ Phosphorylated Peptides
- ✓ Amidated Peptides
- ✓ Biotinylated Peptides

Additional Services

Assay Development (SPR, FP, ChamelogK)

Chromatography (HPLC, TLC, GC, IC)

Chromatography with LC-MS/ESI

Spectroscopy (UV-Vis, IR, NMR)

Assay Development (SPR, FP, ChamelogK)

Titration (Acid-Base & Karl Fisher)

pH Adjustment and Amino Acid Analysis

Metallic Analysis (AAS, ICP, ICP-MS)

Counter Ion Exchange (TFA removal)

Solubility Testing

Equipment

With a full range and optimal equipment ratio, and a dedicated analytical team working 24/6, we manage and achieve high 'speed' delivery

Analytical	Items	Reaction Technology	Items	Purification	Items
SFC - Investigator	1	Microwave	12	SFC - Preparative (mg, g, kg scale)	1
SFC - UPC2	1	Rotavapor	>1 every 2 scientists	Flash System	29
NMR (400 MHz Bruker)	4	20L Rotavapor	4	Scale up Flash System	2
LCMS	9	Lyophilizer	13	PREP HPLC	6
HPLCs	8	Genevac EZ-2	1	PREP HPLC - UV/ELSD	1
HPLC - CAD & DAD	1	Hydrogenators	46	Mass Directed Prep HPLC	1
LCMS/MS	0	20L Glass Reactor	1		
Polarimeter	1	Peptide Synthesizer	1		
Karl Fischer Titrator	1				

Automated Peptide Synthesizer System

O2h discovery has added a fully automated parallel Peptide Synthesizer Syros I, with a one-arm pipetting robot to expand our chemistry synthesis capabilities. This system allows for multiple reactions to occur simultaneously, ensuring rapid delivery of peptide synthesis

- One Robotic Arm
- Max no of peptides 96
- Inert gas blanket option
- Separate cleavage workstation
- Reactor vial size 2.5 10 and 20 mL
- In-situ and pre-activation both
- Vortex mixing (speed control knob)
- Amino Acid vessel standard 40 X 50 mL
- Reagent bottles 5 (2 x 500 mL: 3 x 200 ML)
- 2 digital Syringe pumps for liquid handling
- Conventional heating option (max 96 degC)
- Scale range 0.001 to 0.6 mmol (1 to 600 umol)

Chemistry Case Studies: o2h discovery

Example synthesis of reference peptide compound prepared

