

A microscopic view of cells, likely cancer cells, with prominent orange and purple structures. The cells are arranged in a grid-like pattern, with some cells showing a distinct nucleus. The background is a light, hazy color, suggesting a cellular environment. The overall image has a scientific and medical feel.

BIOSYNTH®

Theranostics Services

**Radiopharmaceuticals
that Combine Smart Peptide
Technologies with Flexible
GMP Manufacturing
Capabilities**

Theranostics

Theranostics are a rapidly growing field. The idea behind this includes a combination of therapeutics and diagnostics in one molecule. Peptides are an ideal support for delivery of both, radioactive markers and therapies to a tumor tissue. Biosynth has a proven track record in the field of radiopharmaceuticals and synthesis of radiolabeled precursors suitable for a wide range of applications. Next to custom synthesis, Biosynth also has a platform of Peptide discovery which allows the development of novo peptides. These services utilize our unique CLIPS™ phage display platform to discover highly constrained de novo peptides with enhanced affinities, selectivities and proteolytic stabilities.

Turning Your Project into a Success Story

We assist you in progressing your peptide project through the various stages of clinical development, application and commercialization. Our lean processes and organization meet the pharmaceutical industry's standards and support us in making your clinical trial a success story.

From feasibility to GMP synthesis, every project is carefully planned and discussed. We work together with you to reduce the effort, timelines and overall costs. The optimized process is used for synthesis and compiled in a CMC report which can be used for regulatory filings (IMPD/IND/HREC). Our downstream process is performed in our Class D cleanroom. As part of our flexible approach, APIs are prepared from milligram scale up to several grams.



End-to-end peptide service, from peptide discovery and lead optimization to R&D production.

Strong track record and flexible GMP manufacturing capabilities.

Best-practice templates for processes, analytical methods and documentation.

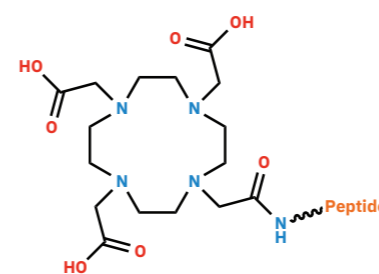
Expert-optimized synthetic protocols, focus on yield improvement and cost reduction.

peptides@biosynth.com

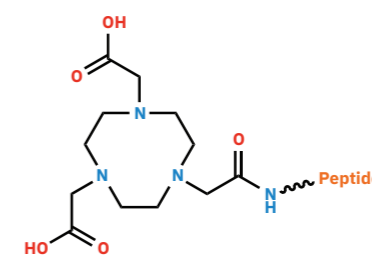
Metal Chelators for One-Step Labeling of Peptides

Versatile introduction of metal chelators at either the N-terminus or in the backbone of the peptide via orthogonal chemistry. Currently there is already a wide range of available chelators, and we are always looking to introduce new types:

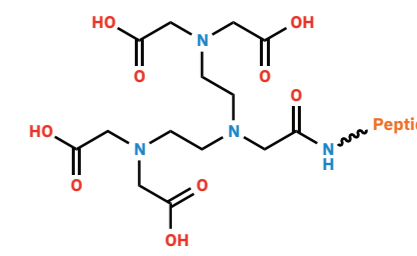
- DTPA, DOTA, NOTA, DOTA-GA and others. These chelators display a high affinity to commonly used multivalent radioactive metals, like Lu-177 (177Lu), Ga-67 (67Ga), In-111 (111In) or Y-90 (90Y), or the cold metals Gd(III), or Y(III) used as MRI contrast agents or in PET or CT imaging.



DOTA-peptide conjugate

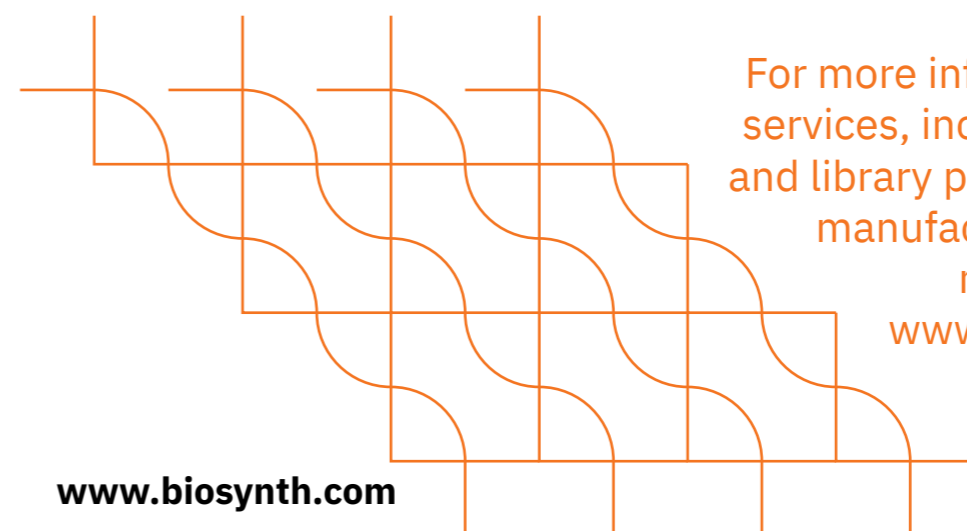


NOTA-peptide conjugate



DTPA-peptide conjugate

- DFO (for Zr⁴⁺ or Fe³⁺ complexation).
- Technetium (Tc) chelators, e.g. mercaptoacetyltriglycine (MAG3) or water-soluble derivatives thereof. These are readily incorporated into site-specific labeled peptides with Tc-99m (of 99mTc).
- Precursors that can be labeled with radioactive metals.
- Biosynth provides disulfide-rich (DSR) peptides for tumor-targeting applications, in combination with almost every commercially available fluorescent dye (e.g. AlexaFluor 488, 594, 647, Fluorescein and Rhodamine/TAMRA).
- Possible incorporation of non-natural aminoacids.



For more information on our peptide services, including custom synthesis and library production, multikilogram manufacture, lead discovery and neoantigen peptides visit www.biosynth.com/peptides

www.biosynth.com

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China
Ireland
South Korea

The Netherlands
Austria
Japan

About Biosynth

Securing Life Sciences Supply Chains - where Chemistry meets Biology, Products meet Services and Innovation meets Quality, Biosynth is at the Edge of Innovation.

With an unrivaled research product portfolio of over half a million products and end to end manufacturing services, we are science led and customer focused to solve problems, taking pride in delivering products and projects that others cannot. Our expertise and capability runs across Complex Chemicals, Peptides and Key Biologics all from one trusted partner.

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