www.entrechem.com

info@entrechem.com

technology

> combinatorial biosynthesis

Genetic engineering of natural products metabolic pathways.

> applied biocatalysis

Enantio- and regio-selective catalysis, screening of enzymes and microorganisms.

services

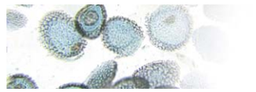
> strain improvement by genetic engineering

Increase titers and/or enables access to novel derivatives.

> chemo-enzymatic synthesis

Design and development of biocatalytic processes to chiral compounds.

products



> natural products

Secondary metabolites by microbial fermentation.

> fine chemicals

Enantiopure compounds for asymmetric synthesis.

entrechem

biotechnology

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entrechem

biotechnology

combinatorial biosynthesis & biocatalysis

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biotechnology

services

Our expertise on the fields of combinatorial biosynthesis and biocatalysis, offered as contract R&D on a custom basis, allow EntreChem to deliver solutions aimed to facilitate the development of pharmaceutical intermediates and novel products for the drug discovery and fine chemical markets.

EntreChem can help you as follows:

combinatorial biosynthesis

- facilitate the search for new antibiotics and antitumorals with our libraries for combinatorial biosynthesis.
- accelerate the development of processes by means of genetic engineering and optimization of downstream processing.
- improve fermentation processes through higher titers, better reproducibility and impurity elimination.
- develop high productivity strains for products in late stages of their life cycle.

biocatalysis and biotransformations

- expand your combinatorial chemistry efforts with new enantiomerically pure synthons.
- design efficient and shorter chemo-enzymatic synthetic routes.
- provide fine chemicals and processes scalable to pilot plant.
- develop clean and environmentally friendly processes.

technology

Our technology focuses on biocatalysis and combinatorial biosynthesis, including development of processes involving enzymatic catalysis and genetic engineering of metabolic pathways.

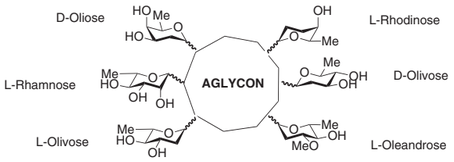
combinatorial biosynthesis

- metabolic pathway engineering

  Combinatorial biosynthesis of natural products for the pharmaceutical (antitumorals, antibiotics, antifungals) and agricultural (bioinsecticides, herbicides) markets.

- altering the sugar profile of glycosylated natural products

  Our sugar plasmids direct the biosynthesis of rare sugars, and our flexible glycosyltransferases recognize and transfer sugars to a variety of aglycons.



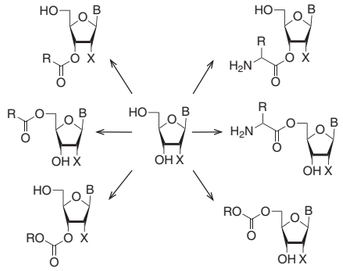
biocatalysis

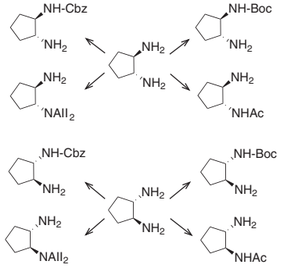
- strain screening

  Biohydroxylation, ketone reduction and nitrile hydrolysis.

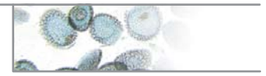
- enantiomerically pure products

  Regioselective manipulation and orthogonal protection of multifunctional compounds.



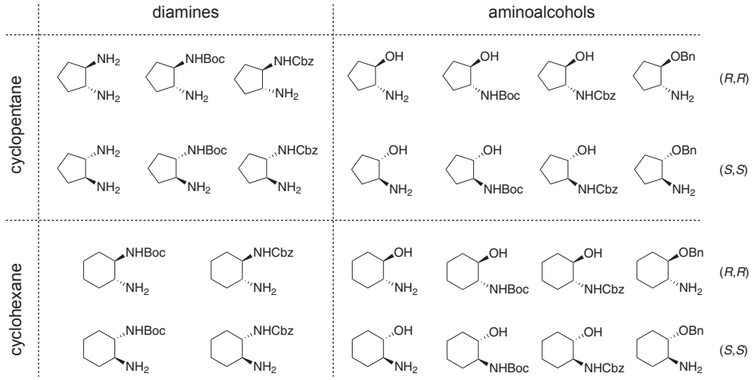


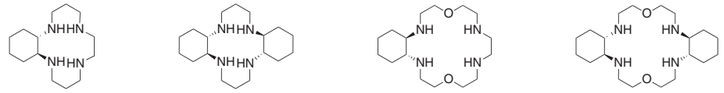
products



Our expanding catalogue is updated frequently. Here are some examples of products available individually, as part of a kit and on-demand as required.

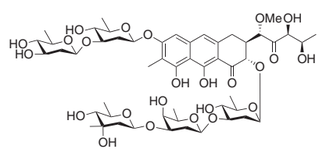
chiral building blocks





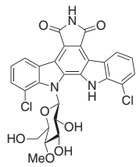
complex natural products

- aureolic acids

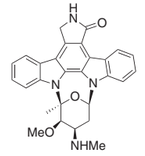


mithramycin

- indolocarbazoles



rebeccamycin



staurosporine