CO_2 to peptides

Peptides are remarkable biomolecules with many important and highly diverse roles. For example, they can display antimicrobial or antiviral activity, act as hormones, regulate proteins, or function as important metabolites. Let's use microorganisms to sustainably produce peptides!

BACKGROUND

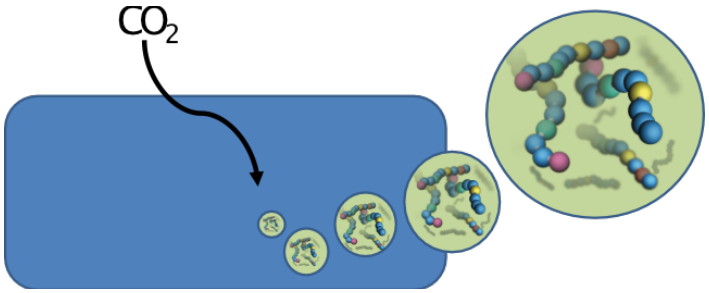
To date, most short peptides are synthesized chemically via solid phase synthesis, which is complex and cost-intense, especially when aiming for large quantities. Since most short peptides are encoded genetically in their original host system, recombinant production is an attractive alternative, which, among other economic advantages, can also easily be scaled up. This also has significant ecological advantages since problematic solvents being used for solid phase synthesis are not required and customers can be supplied with 'green' peptides.

TECHNOLOGY

acib's concept is to use Knallgasbacteria, which naturally fix CO_2. Novel strain engineering and gene expression strategies developed by acib specialists facilitate robust and efficient generation of chassis strains that produce peptides at high level. Our key to success for these hydrogen driven processes is the combination of strain engineering for improved CO_2 utilization with advanced gas fermentation technologies.

OFFER

Under protection of a CDA/NDA we provide you with professional strategies for sustainable production of peptides. IP developed in such a project would fully belong to our investor/industrial partner.



EXPERTS

Prof. Robert Kourist
Dr. Anita Emmerstorfer-Augustin

AVAILABLE FOR

- Joint Research Project
- Contract Research
- Investments

DEVELOPMENT STATUS

Technology Readiness Level 2
(Technology concept formulated)

IPR

Will be generated for our industrial partner / investor

KEYWORDS

- Short peptides
- Antimicrobial peptides
- Peptide Drugs
- Pharma
- Diagnostics
- Vaccines
- Hydrogels

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