



Matchmaking by enzymes: Carboligases and novel C-C bond formation

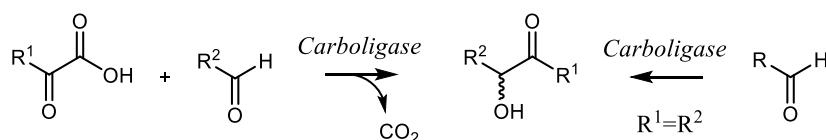
Carbon-carbon bonds ultimately made the emergence of life on earth possible, but they can also bring life to new reactions, leading to many valuable molecules...Let us show you, what they can do!

BACKGROUND

Carboligases catalyze the decarboxylation e.g. of an α -keto acid and simultaneous ligation to an acceptor e.g. an aldehyde, thus forming a novel C-C bond. This makes carboligases a very interesting enzyme class e.g. for the production of chiral acyloins. Incorporated into reaction cascades, carboligase chemistry is valuable for the synthesis of complex molecules.

TECHNOLOGY

acib has expertise in thiamine diphosphate (thDP)-dependent carboligases to fuse two aldehydes or an aldehyde with an α -hydroxyacid to give hydroxy-ketones. We showcased this for short, aliphatic acyloins for flavor and fragrance applications already, and now we are looking forward to extend the concept for other applications with you!



OFFER

Under the protection of a CDA/NDA, acib can provide you with further details and develop a tailor-made enzymatic reaction for your compound or provide/develop the best enzyme(s) for your process. IP developed in such projects can be fully transferred to you as our investor/industrial partner.

acib-EXPERTS:

Dr. Margit Winkler
Dr. Florian Rudroff

AVAILABLE FOR:

- Joint Research Project
- Contract Research
- Investments

DEVELOPMENT STATUS:

Technology Readiness Level 2-4
(Technology concept formulated to validated in Lab, depending on molecules)

IPR (OPTIONAL):

Will be generated for you as our industrial partner/our client

KEYWORDS:

Biotechnology
Natural Compounds
Chiral hydroxyketones
Acyloins
Carboligases
Biocatalysis

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