



Healthy fatty acids: Phytanic acid

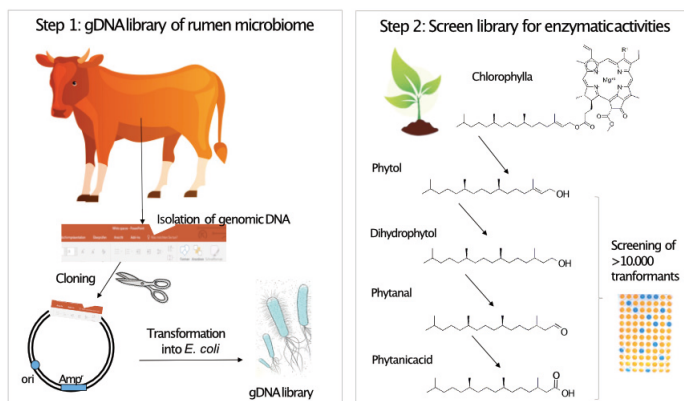
The human diet contains a lot of really healthy compounds, but some are only contained in meat, fish and dairy products and are thus not available for vegans. Let's use microorganisms to create a healthier life for everyone!

BACKGROUND

Phytanic acid and its metabolite pristanic acid are important branched chain fatty acids (BCFA), which display multiple positive health effects. However, humans can so far only obtain them through the consumption of dairy products, ruminant animal fats or certain fish. It's not only humans, but mammalian cells in general that require these compounds and they are e.g. routinely used for induction of adipogenic differentiation in bovine precursors in cultured meat production.

TECHNOLOGY

acib's concept is to use an enzymatic cascade for phytanic acid production starting from inexpensive chlorophyll. To find the best enzymes we use a DNA library of the rumen microbiome, where this conversion is performed with exceptional efficiency. Biotechnologically produced phytanic acid can be used as i) human food supplement, ii) supplement for alternative meat and dairy products, iii) growth supplement and differentiation agent for cultured animal cells.



OFFER

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

EXPERTS

Dr. Anita Emmerstorfer-Augustin
Dr. Aleksandra Fuchs

AVAILABLE FOR

- Investments
- Joint Research Projects
- Contract Research

DEVELOPMENT STATUS

Technology Readiness Level 2
(Technology concept formulated)

IPR

Can be generated for our
industrial partners / investors

KEYWORDS

- Enzymatic Conversion
- Phytanic Acid
- Pristanic Acid
- Branched Chained Fatty Acids (BCFA)
- Health
- Anti-diabetic
- Anti-carcinogenic
- Adipogenic Differentiation
- Cultured meat

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