



Protein Engineering

Your protein of choice is not stable enough? The activity or affinity is too low? It is only poorly expressed or cannot be easily purified? No problem for acib – we can help you!

BACKGROUND

Proteins are ubiquitous in today's industry, from washing your clothes over biofuel production to lifesaving biotherapeutics. However, Nature has evolved proteins for its own purposes, which can elicit problems if they are used for commercial applications: Enzymes do not recognize the target substrate or produce undesired side-products; solvents inactivate them, or they precipitate because of unfavourable process conditions. Some proteins may not be well expressed and others are almost impossible to purify without tags. Some biotherapeutics are recognized as foreign molecules by the immune system, or their affinity is too low, while some are so small that they are cleared from the blood stream before they can exert an effect.

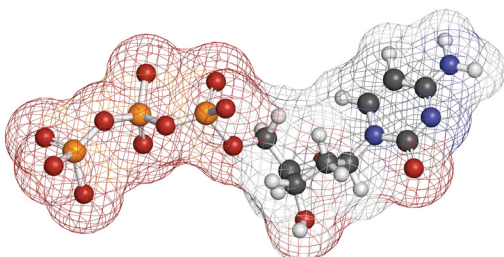
TECHNOLOGY

acib helps you to optimize your protein of choice for your application. We combine directed laboratory evolution with structure-based rational design approaches. In case there is no structure known, we can establish it using x-ray crystallography or computer modelling. acib has a long history of setting up high-throughput screening assays, as well as sophisticated analysis to identify the best variants. We engineer heterodimeric bispecific antibodies. Our synthetic biology group is able to incorporate non-natural amino acids at defined positions to go beyond the standard range of engineering, e.g. for controlled protein functionalization in drug delivery, directed immobilization on solid surfaces or targeted PEGylation of biotherapeutics ...

In addition, we can optimize the expression, purification and immobilization of your target protein all at once!

OFFER

Under protection of a CDA/NDA we provide you with professional strategies for engineering your protein of choice. Any IP developed in such a project would fully belong to the investor/industrial partner.



EXPERTS

Prof. Dr. Bernd Nidetzky
Prof. Dr. Robert Kourist
Prof. Dr. Harald Pichler
Prof. Dr. Anton Glieder
Prof. Dr. Georg Gübitz
Prof. Dr. Florian Rümer
Prof. Dr. Karl Gruber
Dr. Birgit Wiltschi

AVAILABLE FOR

- Investments
- Joint Research Projects
- Contract Research

DEVELOPMENT STATUS

Technology Readiness Level 3-5
(Technology validated in lab)

IPR

Will be generated for our industrial partner / investor

KEYWORDS

- Protein Engineering
- Rational Design
- Directed Evolution
- Enzyme Engineering
- Antibody Engineering
- Non-natural amino acids

CONTACT

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