



# Recombinant Protein Production

You have finally found the perfect enzyme, the ideal biotherapeutic or just an incredible interesting protein to study, but you can't express it or only in insufficient amounts? No problem for acib – we can help you!

## BACKGROUND

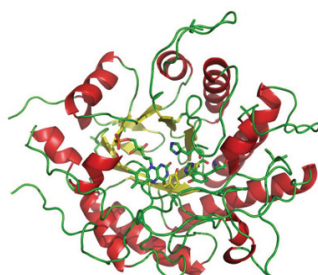
Proteins appear in all types and shapes and can be used in countless ways, both scientifically and commercially. However, the main bottleneck in protein applications is the availability of the protein and ultimately the cost of its production. Choosing a suitable production host is difficult and depends on numerous factors: Of which origin is my protein of choice and which hosts would most likely lead to high yields? Which vector would be the best choice? Is working with plasmids or genomic integration of the respective gene the better strategy? How to best avoid antibiotic resistance markers in the production strain? Is codon optimization required and which algorithm should be used? Does it have post-translational-modifications (e.g. glycosylations) influencing its solubility or correct function? Could it be toxic to some hosts? Does it have disulfide bonds and does it fold well overall? Is it quickly degraded in the host or end up in inclusion bodies and if yes, can it be refolded? Does it need tags? Should it be secreted for easy purification? etc.

## TECHNOLOGY

acib has gained vast experience through a variety of projects for the industry and has a broad selection of bacterial, yeast, fungal, insect and mammalian host cells available. This includes FTO-hosts for commercial applications and a set of numerous vectors - some unique to acib - with a wide selection of promoters, selection markers and purposes. According to the customer's needs we compare all available host systems, vectors and strategies and can either compile a written concept, conduct feasibility expression studies or full-scale expression with upscaling to laboratory bioreactors. In addition, we optimize downstream processing and use protein engineering for further optimization of your protein!

## OFFER

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



## EXPERTS

Prof. Dr. Bernd Nidetzky  
Prof. Dr. Brigitte Gasser  
Prof. Dr. Gerald Striedner  
Prof. Dr. Nicole Borth  
Prof. Dr. Harald Pichler  
Prof. Dr. Anton Glieder  
Prof. Dr. Georg Gübitz  
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 Expression
- High Yield
- Host Cell Comparisons
- Vector Design
- Microbial Cell Factories
- Insect Cell Lines
- Mammalian Cell Lines

## CONTACT

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