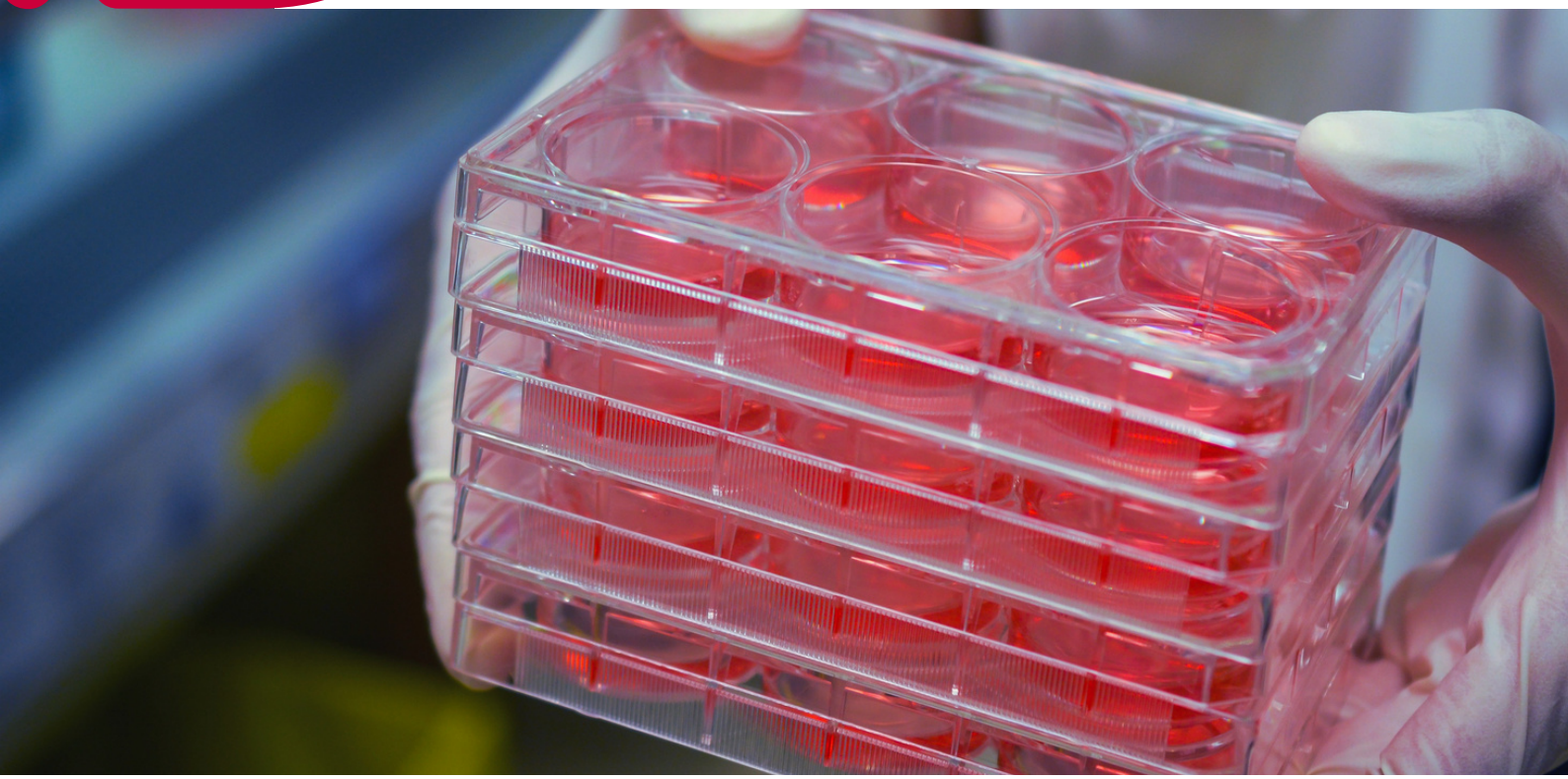
FyoniBio



Feasibility Study

Do you have problems with your recent protein project?
Try our GlycoExpress® and CHOnamite® cell lines

Key Facts about GlycoExpress® and CHOnamite®

GlycoExpress® (GEX®) are human cells suitable for the production of authentic human glycosylated proteins without immunogenic non-human carbohydrate residues.

CHOnamite® is our in-house developed CHO platform originated from CHO-K1 and CHO-DG44 cells. The technology enables high yield production of antibodies and complex proteins.

Successful Case Studies so far:

- Antibodies of different isotypes
- Defucosylated antibodies
- Bispecific antibodies/ antibody fragments
- Difficult-to-express proteins
- Blood factors and hormones
- Enzymes

Feasibility Study in GlycoExpress® and CHOnamite®

Because different products need different quality and glycosylation characteristics for their optimal activity, a set of GEX® and CHOnamite® cell lines with the following attributes is available:

- **mAbExpress and mAbExpress^{F-}** for optimized glycosylation of antibodies, including high (mAbExpress) or lacking core-fucosylation (mAbExpress^{F-}, ADCC enhancement), high galactosylation, bisGlcNAc and sialylation
- **SialoMax** used for products where high sialylation and high core fucosylation is required
- **SialoFlex and FucoFlex** allow gradual adjustment of the sialylation (SialoFlex) or fucosylation (FucoFlex) degree for screening of the optimal content of sialic acid or fucose on a product
- **CHOnamite®** enables high yield production for complex mammalian proteins and consists of CHO-K1 and CHO-DG44 host cells

We offer standard work packages at reasonable costs to explore the potential of our cell platforms.

Feasibility study

Steps to Find the Best Cell Line Solution

Screening of GlycoExpress® and CHOnamite® cells

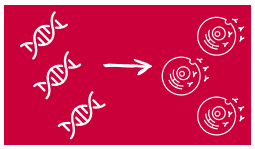
Gain required product glycosylation/PTM characteristics

Combining cell systems with a set of expression vectors

Testing of diverse vectors, leaders, cDNA constructs

Generation of stable expressing cell pools

Comparison of productivity of cells



Production of protein containing supernatant

Provide supernatant to customer or purify/ analyze at FyoniBio

Combining Cell Platforms with a Set of Expression Vectors

FyoniBio offers tailor-made expression vectors for protein production in GEX® and CHOnamite® cells. We operate with selected vendors for the synthesis of sequence optimized DNA. A set of expression vectors is available to analyze the following parameters and find the best solution for each project:

- Leader sequences
- Enhancer/promotor sequences
- cDNA versus genomic DNA

Generation of Stable Cell Pools

Stable transfection is performed by highly efficient electroporation and stable cell pools are generated by applying the appropriate selection pressure. Production titers can be determined by standard methods (e.g., ELISA, Octet) or customer specific analysis methods can be implemented. Initial selection of best producing pools is based on the obtained productivity data.

Production of Supernatant for Further Quality Assessment

Depending on the desired amount of protein, stable cell pools can be used to produce supernatant in spinner/ shake flask cultures (up to 2L) or in lab scale batch fermentation processes (up to 5L). For the quality analysis of produced supernatant following options are available:

- Direct purification and analysis (e.g., PTMs, aggregates) at FyoniBio based on customer requirements
- Providing supernatant to the customer for analysis

Test GlycoExpress® and CHOnamite® at Reasonable Costs

Prize list for a feasibility study	
Generation of expression vectors	
Containing optimized GOI sequences	Pass through cost*
Generation of stable pools	
1-4 Pools	5995 €
5-8 Pools	8995 €
16 Pools	14995 €
Production of supernatant	
2L Volume	4995 €

*Depending on complexity and size of GOI

The FyoniBio team is glad to support you throughout your projects

FyoniBio offers high quality ISO-9001 compliant services. Fore more information please contact us.

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