

## Feasibility Study

Compare our GlycoExpress® and CHOnamite® Platforms to Select the Best Cell Line for Your Protein.



### Key Facts about Our Platforms

The human **GlycoExpress® (GEX®)** cell lines are suitable for the generation of authentic human glycosylated patterns without immunogenic non-human carbohydrate residues.

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



### Successful Case Studies:

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

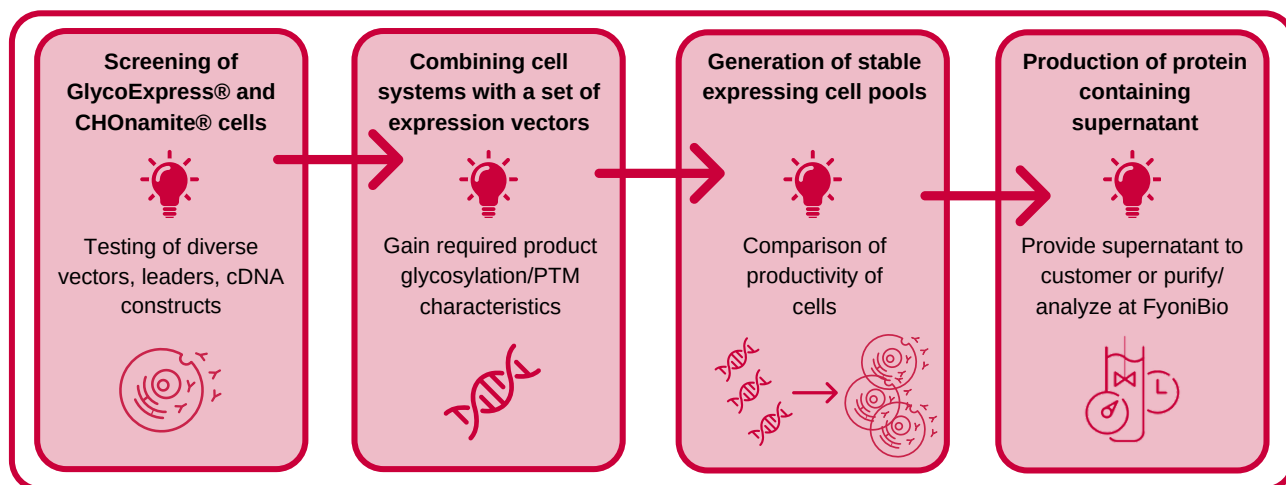
### Feasibility Study in GlycoExpress® and CHOnamite®

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

- **SialoMax** is utilized for products requiring high sialylation and core fucosylation.
- **SialoFlex** and **FucoFlex** allow for the gradual adjustment of sialylation and fucosylation degrees, respectively, enabling screening for the optimal content of sialic acid or fucose in a product
- **ManFlex** is aimed at mannose-6-phosphate adjustment
- **CHOnamite®** facilitates high-yield production of complex mammalian proteins

# Feasibility study

## Select the Most Suitable Cell Line!



### 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 2 L) or in lab scale batch fermentation processes (up to 5 L). For quality analysis of produced supernatant following options are available:

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

**We provide cost-effective standard work packages to explore our cell platforms' potential.**

**Take the chance and test GlycoExpress® and CHOnamite®!**

**The FyoniBio Team Is All Set to Bring Your CMC Project to the Next Level!**

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



**FyoniBio**  
www.fyonibio.com

Robert-Roessle-Str. 10  
13125 Berlin, Germany

+49 (0) 30 9489 2500  
contact@fyonibio.com

