Magellan Biologics and Consulting

Achieving Excellence in Transient Protein Expression

Transient protein expression (TGE) in mammalian cells has become a cornerstone of modern biotechnology, powering discovery and preclinical research worldwide. It enables the rapid production of proteins for screening, assay development, and candidate selection, but the process is often complex and unpredictable. Tedious steps, variability in yields, differences between constructs, and inconsistent results force teams to repeat attempts or troubleshoot, stretching timelines and consuming valuable resources. As protein targets become more complex, these challenges only intensify.

Jérôme Puginier,
General Manager,
Magellan Biologics and Consulting

In an environment where delays in material quality or availability can impact downstream decisions, R&D teams need a system that consistently delivers, reduces complexity, contains costs, and accelerates programs.

Magellan Biologics and Consulting provides exactly that. With decades of experience in mammalian expression systems, the team has developed CHO 4Tx®, a streamlined, ready-to-use platform designed to improve consistency, reduce rework, and increase yields. It gives R&D teams greater control over protein production so they can focus on science rather than setbacks.

"CHO 4Tx® was designed to simplify TGE and eliminate variability-generating parameters. Researchers receive a straightforward protocol, high reproducibility, and support from a team that understands both the technology and the pressures our clients face," says Jérôme Puginier, General Manager.

The Science Behind CHO 4Tx®

Designed by scientists for scientists, CHO 4Tx® simplifies TGE without compromising performance, offering fast setup, predictable output, and flexibility. The system combines three optimized components: a proprietary CHO cell line developed for high-yield expression, a patented three-step protocol, and three dedicated media formulations, each supporting a distinct phase of the process. The step in generating DNA delivery complexes prior to exposing the DNA to cells and media is eliminated.

The workflow is straightforward. After seeding cells in the cultivation medium, researchers switch to the transfection medium and add the DNA of interest. Three hours later, the production medium is introduced, supporting sustained expression for up to 14 days. No DNA complexing or feeding steps are required, reducing variability and hands-on time.

Harvesting can be performed at 7, 10, or 14 days depending on project requirements. Whether teams are producing dozens of constructs in sub-milliliter volumes for screening or scaling up to 40 liters or more, CHO 4Tx® delivers consistent results across formats. It provides laboratories with the speed and reliability of an in-house system without the usual complexity. The company also continuously invests in refining transient workflows through in-house R&D, ensuring its platforms evolve with the needs of modern laboratories.

Built for the Pace of Modern Research

Beyond the technology, Magellan's approach is shaped by the real-world needs of early-stage research. For teams managing multiple targets with limited resources, CHO 4Tx® brings predictability and scalability. The system adapts to laboratory requirements, whether for high-throughput screening or preparation for scale-up.

> *CHO 4Tx® was designed to reduce error and variability inducing steps and to improve yield. Researchers get a straightforward protocol, high reproducibility, and support from a team that understands both the technology and the pressure our clients are under.*

Protein quality is equally important. CHO 4Tx® supports clean expression profiles and consistent performance across runs, even for difficult-to-express proteins, ensuring that materials are suitable for decision-making. Magellan works flexibly with clients to define success, whether that means maximizing yield, maintaining protein integrity, improving reproducibility, or reducing hands-on time and cost per milligram.

Reproducibility across users and runs helps reduce operator-dependent variability, a common challenge in transient expression. Scientists spend less time troubleshooting and more time generating reliable data. Because every protein and program is different, Magellan provides tailored guidance throughout, helping teams fine-tune conditions for each project. This collaborative approach has led to long-standing partnerships and, in some cases, co-authored publications[1] that reflect a shared commitment to advancing science.

Clients also benefit from Magellan's partnership with ExcellGene. Built on shared technology and cell lines, this collaboration supports a smooth transition from transient to stable expression, maintaining continuity from early discovery through preclinical development.

Magellan Biologics and Consulting continues to stand out in the protein expression field by combining scientific depth with practical execution. With more than 40 years of expertise in transient expression and a collaborative mindset, the company is more than a provider; it is a strategic partner in the discovery process.

[1]https://www.mdpi.com/2073-4468/14/4/87/xml