ABZENA

Robust & Flexible Cell Lines That Fit Your Strategy

AbZelectPRO™ | AbZelectPRO™- KO | AbZelectPRO™- KO+

Tailored Standalone CLD or Fully Integrated to GMP Manufacture

For a new complex biologic therapeutic, developing a robust, high-yielding cell line is a foundational step in the development journey to IND. However, the path to a successful cell line isn't always straightforward and can be a complex, timely and multi-faceted process that requires careful planning, integration and execution.

At Abzena, our two decades of expertise in CLD coupled with our state-of-the-art technologies ensures that every step of the process is meticulously planned and executed to meet the specific needs of each biologic, so that your pathway to the clinic is de-risked and streamlined.

Our AbZelectPRO™ cell line platforms offer biopharma customers a solution with higher productivity, rapid timelines and proven performance, all without the frustration of royalty or exit fees. Our integrated partnered technologies with Revvity and ProteoNic Biosciences enable us to accelerate and enhance CLD workflows from DNA to research cell bank (RCB) generation in just 10 weeks with up to 10g/L in high-performing titers.

Mammalian Platforms that Deliver a New Standard of Excellence

- **AbZelectPRO™**
  - Cell Line: CHO-K1
  - -GMO: None
  - -IND: 10+
  - Vector*: 2G UNic® → ProteoNic Biosciences
  - -Selection: Low MSX
  - -IND: 20+
  - Pool Titers: 3-4 g/L
  - RCB Timeline: 10 weels
  - Clonal Timeline: Up to 10 g/L
  - Gen 60 Stability: >97%

- **AbZelectPRO™- KO**
  - Cell Line*: CHOSOURCE™ → revvity
  - -GMO: CHO-K1 GS -/-
  - -IND: 90+
  - -Market: 4
  - Vector*: 2G UNic® → ProteoNic Biosciences
  - -Selection: No MSX
  - -IND: 20+
  - Pool Titers: 3-4 g/L
  - RCB Timeline: 10 weeks
  - Clonal Titers: Up to 10 g/L
  - Gen 60 Stability: >97%

- **AbZelectPRO™- KO+**
  - Cell Line*: CHOSOURCE™ ADCC+ → revvity
  - -GMO: GS & Fut8 double KO
  - Vector*: 2G UNic® → ProteoNic Biosciences
  - -Selection: No MSX
  - -IND: 20+
  - Pool Titers: 2-3 g/L
  - RCB Timeline: 12 weeks
  - Clonal Titers: 4-6 g/L
  - Gen 60 Stability: >97%

-ProteoNic's 2G UNic® vector boosts CHO cell protein yields by enhancing transcription, translation, and stability - enabling high titers and rapid cell line development.

-Revvity's CHOSOURCE™ Glutamine Synthetase (GS) knockout cell line is a well-established, cGMP-manufactured CHO-K1-derived suspension cell line.

**License fees at IND*

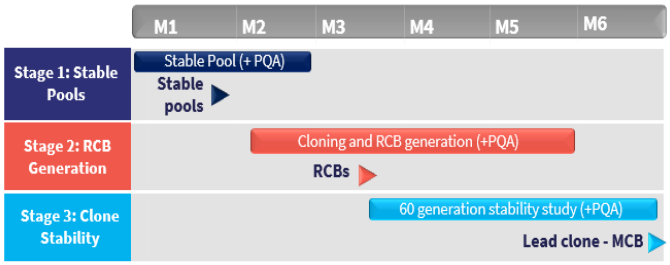
The AbZelectPRO Advantage

Abzena's AbZelectPRO™ CLD platforms have been developed with a focus on optimizing three key areas with improved efficiency in mind:

- **The vector —Codon optimized transgenes using ProteoNic's 2G UNic® vector technology**
  -Optimized dual promoters
  -Improved mRNA transport and translation
  -Higher rates of transcription
  -Epigenetic stabilization
  -Reduced gene silencing
  -Greater clonal stability & % of high producing clones
- **The host cell line — CHO-K1, CHOSOURCE GS KO, or CHOSOURCE GS KO ADCC+ host cell lines:**
  -Fast PDT and High VCDs
  -Optimized and grown in commercially available SF, CD media and feeds
  -Full materials traceability, cell history package, and DMF logged with the US-FDA
- **The process — Optimized Process:**
  -From transfection to stable pool and clone generation to maximize efficiencies and reduce timelines
  -High productivity performance in bioreactors through media screening and DOE
  -State-of-the-art equipment

These optimizations enable the rapid generation and selection of high-yielding stable CHO cell lines for therapeutic protein and recombinant vaccine production. As a result, highly productive clones can be generated quickly with consistent quality, helping to ease manufacturing efforts as the project scales.

Speed & Quantity Without Compromising on Quality



Streamlining IND application

Backed by the extensive experience of Abzena's experts in developing biologic therapeutics and delivering them successfully to clinical phases, the AbZelectPRO™ platforms simplify the IND application process.

The platforms have been built with ICH guidelines in mind at every step and are supported by Abzena's analytics platform, which has been carefully developed leveraging years of biologic production experience. Ensuring quality and compliance throughout the process, Abzena provides a comprehensive report that can be easily integrated into the IND filing. Stage-appropriate, fit-for-purpose assessments and technologies include biologics characterization, developability assessments, mass-spec capabilities, method development and formulation development.

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Achieve More From Your Cell Line By Partnering With Abzena

As a CDMO with over two decades of experience in CLD, Abzena has expertise in expressing biologics ranging from mAbs, antibody fragments, fusion proteins, and vaccines. Having developed hundreds of cell lines, we are here to help you accomplish your goals, and help progress your program to its next target inflection point with greater success.

To discover how Abzena's AbZelectPRO™ platforms could streamline your program to IND and beyond, get in touch with us today at abzena.com or info@abzena.com.

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