

Cell & Protein Sciences

Recombinant Protein Production & Bioconjugation, Cell Line Generation, & Antibody Discovery

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Introduction

- A capable team with experience ranging from **2 to 20 years**.
- **15,000 sq. ft.** of dedicated microbial and mammalian facilities equipped with state-of-the-art infrastructure to support the entire workflow.
- **Four dedicated service lines** comprising of recombinant protein/antibody production from diverse expression hosts, bioconjugation services, stable cell line generation and antibody discovery

Recombinant Protein Production & Bioconjugations		Stable Cell line Generation	Antibody Discovery
Bacterial • <i>E.coli</i> : BL21 (DE3), C41 (DE3), Tuner (DE3) etc.)	Insect Cells • Sf9, Sf21, Hi-Five	Various Cell lines used • CHO • HEK293 • Cancer cell lines	Hybridoma Technology Phage Display Technology
Yeast • <i>P.pastoris</i> : X-33, GS115, KM71H, etc.	Mammalian Cells • HEK293-F, Expi293, ExpiCHO, CHO-S		
<ul style="list-style-type: none"> • Gene to Protein production from 'mg' to 'g' scale. • Intracellular / secretory expression. • Small-scale screening to large-scale expression. • Capacity ranging from 3 mL - 100 L per week. • Protein/Ab Bioconjugations - (Biotinylation, ADC, DAC, AOC, labeling, PEGylation, enzymatic etc. 		Mode of expression: • Intracellular, Secretory, Membrane Gene delivery tools: • Chemical transfection (Lipid-based, PEI-based) • Electroporation (Neon & Amaxa nucleofector) • Viral transduction (Retrovirus, Lentivirus)	<ul style="list-style-type: none"> • Inhouse naïve human library for phage display technology. • Identify and develop novel high-affinity antibodies against target antigen. • High-throughput Ab production for Ab screening.

Protein Characterization

- Quantification
- Purity by aSE-HPLC
- SDS-PAGE analysis
- Mass Spectrometry
- Endotoxin measurement
- SPR binding studies
- Western blot analysis
- Peptide mass fingerprint

Standard QC Package

- Mycoplasma
- Sterility
- Expression levels (Western, FACS, Luminescence)
- Freeze-thaw
- Stability (Optional)

Antibody Characterization

- Quantification
- Purity by aSE-HPLC
- Titer by PA-HPLC
- SDS-PAGE analysis
- ELISA
- SPR binding studies
- Mass Spectrometry
- Endotoxin measurement

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