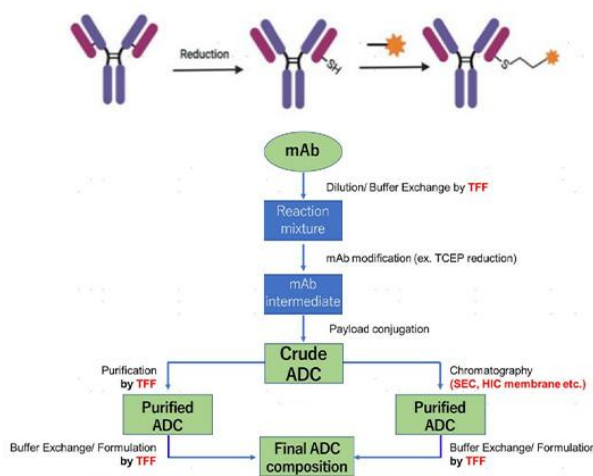




One-Stop Platform for CMC of ADC Drugs

From early conjugation development to GMP manufacturing and analytical release testing—HiLand delivers integrated solutions for Antibody-Drug Conjugates.



Conjugation Process Development

Chemical Conjugation Technologies

We develop optimized chemical conjugation processes to ensure stability, precise DAR (drug-to-antibody ratio), and batch-to-batch consistency, supporting both preclinical and GMP manufacturing scales.

Enzyme-Based Conjugation

Our proprietary iLDC (intelligent Ligase-Dependent Conjugation) and iGDC (Glycosyl-transferase-Dependent Conjugation) platforms enable site-specific, high-homogeneity ADC production without compromising antibody function.

Benefits:

- Improved ADC uniformity and bioactivity
- Streamlined downstream processing

- Scalable for late-stage development

Linker-Payload Selection Support

We assist clients in rational selection of linkers and cytotoxic payloads to match pharmacokinetic and therapeutic goals, addressing hydrophobicity, release kinetics, and conjugation efficiency.

Purpose-Built Infrastructure for ADC Development

- Yellow light systems in both development and GMP suites to protect photosensitive ADC payloads
- Single-use glass vessels for flexible scale-up and de-risking development
- Negative-pressure isolators and containment systems to ensure operator safety and prevent cross-contamination during high-potency payload handling



Comprehensive Characterization of ADCs

HiLand offers end-to-end analytical services that support CMC development, release, and stability studies across all ADC modalities.

ADC Assays
Average DAR (UV, RP-HPLC, SEC-HPLC, HIC-HPLC)
DAR Distribution (HIC-HPLC, RP_HPLC)
Conjugation Site
Native Mass (SEC-HPLC, HIC-HPLC)
Free Drug
Naked Antibody (D0)
Residual DMSO

Residual DMA

Residual PG

Residual CAN

Endocytosis Activity

By-stander Effect

Cell Cycle Arrest

DAR variants Fraction and Characterization

Comparison of Primary Structure before and after Conjugation

Comparison of High-order Structure before and after Conjugation

Comparison of Fab Related Function before and after Conjugation

Comparison of Fc Related Function before and after Conjugation



ADC Manufacturing Capabilities

ADC Drug Substance Manufacturing

Our GMP manufacturing suites are equipped for ADC intermediate production at various scales:

- Conjugation capacity: 50L, 200L, 500L (glass, stainless steel, and disposable reactors)
- Capable of supporting up to 150 batches per year

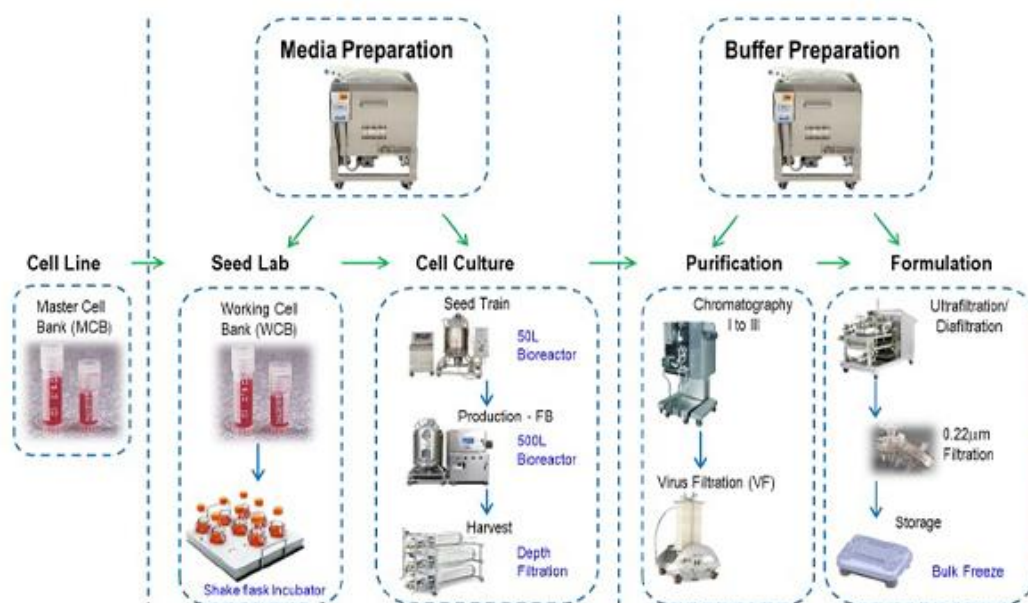
- Chromatography and ultrafiltration equipment (Cytiva, Merck) with single-use consumables
- Built-in controls for cross-contamination and operator safety

ADC Drug Product Manufacturing

Sterile fill-finish capabilities tailored for ADC formulations (liquid or lyophilized), operated under strict GMP conditions for Phase I-III and commercial supply readiness.

Integrated Manufacturing Platform

Our end-to-end platform seamlessly integrates conjugation, purification, analytical testing, and final drug product fill-finish—simplifying your CMC pathway and accelerating timelines.



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