

ADC PRODUCTS

- ADC screening kits
- Anti-toxin antibodies
- Analytical services
- Conjugation services



The ADC Specialty Company

Our mission is to provide our clients impeccable service, technologies and superior quality for the discovery and development of new antibody drug conjugates. Creating the best solutions for cancer and other unmet medical needs is our highest priority for patients worldwide.

Levena Biopharma has built a one-stop-shop for ADCs from inception to clinic and beyond. Over the past 9 years we have developed a full suite of reagents, tools and capabilities to enable our clients and partners with the opportunity to produce best in class antibody drug conjugates.

Levena Biopharma's product line encompasses a large portfolio of validated toxins and proven linkers. We also offer a variety of proprietary linkers and toxins conveniently available in test kits. In combination with our proof-of-concept (POC) ADC conjugation services, our expert team of scientists can quickly evaluate your ADCs with detailed data, analysis and recommendations. We also provide cost-effective services for ADC optimization, process development, analytical testing and cGMP manufacturing.

For more information, please contact us for any inquiries.

Email: info@levenabiopharma.com

Phone: **+86 512 81877925**

Industry standard linkers,
toxins, linker-toxins

Custom synthesis of
ADC-enabling
compounds

ADC conjugation
services for research
and development

Large scale synthesis of
payloads

cGMP grade production
of payloads

Levena Biopharma

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ADC LINKERS

Levena Biopharma's linkers embody a wide range of structures and functionalities, designed for the conjugation of a broad spectrum of antibodies and toxins. More importantly, our linkers allow the conjugation process to be performed in a precise and controlled fashion, easing the batch-to-batch product manufacturing and quality control. We use conventional chemistries to provide customized design and synthesis of linkers to support your drug development.

- Val-Cit-PAB, 1g-1kg, Purity >95%
- Fmoc-Val-Cit-PAB, 1g-1kg, Purity >95%
- Fmoc-Val-Cit-PAB-PNP, 1g-100g, Purity >95%

SAFE & EASY TOXIN (SET™)

Levena Biopharma offers Safe & Easy Toxin (SET™), an intuitive research tool for rapid antibody-drug conjugation experiments. SET™s ready to use to validated linker-toxins in small, pre-packaged vials equipped with septum. Each SET™ vial contains approximately 200nmol of linker-toxin, sufficient to conjugate up to 5mg antibody with a drug-to-antibody ratio (DAR) of 3-4. No weighing or aliquoting of the linker-toxin is necessary. Simply follow the dissolution protocol provided with the product and the SET™ is ready to use. The SET™ format is easy to use and, at the same time, minimizes the exposure of the lab space to hazardous toxins. Currently, SET™s are available for the following categories:

- Amine Reactive SET™
- Thiol Reactive SET™
- Click Reactive SET™
- Sortase Reactive SET™

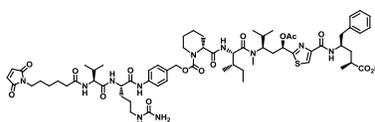
CGMP PRODUCTION

Levena Biopharma has established a new process development and manufacturing capabilities in Suzhou to meet the need our growing customer base. This modern facility is designed to accommodate up to kilogram-scale production and is compliant with the most stringent occupational safety requirements. You are cordially invited to visit and audit.

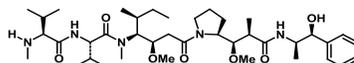
ADC PAYLOADS

Levena Biopharma offers a comprehensive assortment of tubulin inhibitors and DNA-alkylating agents that are proven and used commercially as payloads. These toxins are available in purity that is suitable for use as an API; we also can provide cGMP production of 100 gram quantities. Levena Biopharma in addition has a portfolio of proprietary toxins available for testing and licensing upon request.

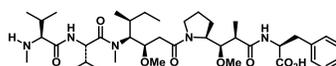
- MC-vc-PAB-Tubulysin



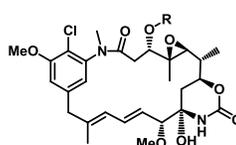
- MMAE 10mg-1kg, cGMP grade



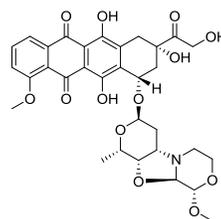
- MMAF 10mg - 1kg, cGMP grade



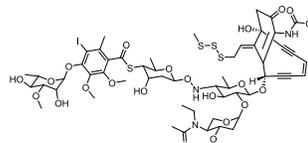
- Maytansinol, DM1, DM4 10mg-100g, cGMP grade



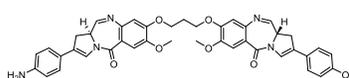
- PNU-159682, 1mg-10g



- N-Acetyl-Calicheamicin, 1mg-100g



- PBD derivatives, 1mg-10g



ADC SERVICES

Levena Biopharma has a veteran team of scientists to provides small, large scale proof-of-concepts well as PR&D support for ADC conjugation with a rapid turnaround. Our conjugation service delivers affordable and high quality custom ADCs, using combinations of payloads, linkers, and conjugation methods. Service includes a comprehensive ADC report with full characterizing specifications. We have prepared several hundreds of ADCs from human, mouse, and rat IgG1 and IgG2 from 5mg to 2g. The ADCs have been used for in vitro, in vivo and clinical studies.

Analytical techniques

- Method development
- Concentration determination with UV
- Drug-to-Antibody Ratio (DAR) and unconjugated antibody by HIC-HPLC
- Aggregate analysis by SEC-HPLC
- Residual drug composition by RP-HPLC
- Endotoxin
- SDS PAGE
- Cell killing assays
- ELISA
- Stability studies

CMC Development Capabilities

- Process, Formulation, and Analytical
- Technical Transfer

ADC PRESCREENING KITS

Levena Biopharma has developed pre-screening kits using Protein A and Protein G, PSKA™ and PSKG™, that can expedite the identification of antibodies suitable for ADC candidates. With these kits, primary antibodies can be screened without individual conjugation to cytotoxic agents. We offer PSKs with widely-used industry standard toxins such as MMAE, MMAF, DM1, and duocarmycin.

ANTI-TOXIN ANTIBODIES

Levena Biopharma offers a set antibodies against a variety of payloads. Currently, the following anti-payload monoclonal and polyclonal antibodies with specificity against different categories of cytotoxic drugs are available. These products are for research purposes only, not for use in diagnostics.

- MMAE/MMAF
- DM1/DM4
- Calicheamicin
- PNU-159682
- Duocarmycin
- Amanitin