

Comprehensive Bioanalytical Solutions for Antibody-Drug Conjugates (ADCs)

Introduction

With over 20 years of expertise in biomarker and bioanalytical science, Synexa is uniquely positioned to support your ADC programme from discovery through to late-phase clinical trials. Our agile scientific teams across our global labs in Manchester, Turku (Finland) and Cape Town provide tailored, high-quality solutions with seamless operational delivery.



Why Choose Synexa for ADC Programmes?

- Deep domain expertise in complex biologics
- Bespoke assay development for unique sponsor compounds
- Automated labs to support global Phase I–III trials
- Consultative, flexible approach
- Integrated scientific strategy & logistics support
- Immunoassay and Mass Spectrometry solutions delivered via UK facility



Technologies LC/MS-MS

- Waters Premier I-Class UPLC with Waters Absolute MS/MS detectors
- Waters I-Class UPLC systems coupled to a Waters TQ-S MS/MS detector
- Waters I-Class UPLC system coupled to a Waters TQ-D MS/MS detector
- Sciex Triple Quad 6500+ systems



Ligand-binding

• MSD	• DELFIA
• AlphaLISA	• Gyrolab
• ELISA	



ADC-Specific Capabilities

1. Pharmacokinetics

- Custom-developed ADC assays (LBA)
- Total Ab assays (LBA)
- Payload assays (LC-MS/MS)
- DAR-aware assay design to ensure sensitivity and precision
- Over 150 validated biomarker assays using MSD, ELISA, LC-MS/MS and more
- Fully FDA/EMA guideline-compliant validations

2. Immunogenicity Profiling

- Tiered ADA testing including screening, confirmation, and NAb characterisation
- Domain-specific controls to assess immune response to antibody, linker or payload
- Functional and ligand-binding NAb assays reflecting in vivo relevance

3. Mechanisms of Resistance

- In vitro resistance modelling using cyclical ADC dosing in cancer cell lines
- Characterisation via MSD, dPCR, NanoString, and lysosomal imaging
- Translational insights from oncology patient networks for stratification and risk assessment

4. ADC-Related Toxicity

- Ex vivo bone marrow progenitor assays for neutropenia/thrombocytopenia risk
- Long-term cultures with flow cytometric phenotyping and ADC challenge
- Custom models to de-risk off-target or bystander toxicity

Discuss your programme with a scientist

Speak directly with a Synexa scientist about your ADC assay requirements today.
Email our team at contactus@synexagroup.com to get started.