

ADC Bioconjugation Services

Antibody-drug Conjugates (ADCs) are a class of biopharmaceutical drugs that combine potent chemotherapeutic agents with the targeting capabilities of monoclonal antibodies. Pharmaron's team provides small molecule drug synthesis, linker design and synthesis, antibody generation and bioconjugation services, which enable the efficient assembly of the ADCs and controlled release of the drug payload.

Technologies

- Chromatography Systems (e.g., SEC, HIC, CEX, RPLC, HILIC)
- LC-TOF
- UPLC-QTOF
- 2D-LC-TOF
- ÄKTA Purification System
- Minimate TFF System
- Nanodrop UV-Vis
- Microplate Reader
- Capillary Electrophoresis
- Biacore S200

Services

Small Molecule and Biologics Services

- Synthesize highly potent payloads, linkers and linker-payloads independently once the structure of the molecule is provided
- Generate purified antibodies and proteins with 95% purity once sequence is provided

Bioconjugation Pilots to Bulk

- Multiple bioconjugation conditions evaluated in 96-well formats
- Optimal conditions determined to scale-up production

Characterization

- Analysis at intact, sub-unit and peptide level of the biconjugate
- Determination of Drug-to-Antibody Ratio (DAR), aggregates, conjugation site and occupancy, free drug residue, charge variants, glycosylation site, endotoxin, etc.

in vitro Assays

- ADC generated with desired properties tested for potency
- 1900 different cell lines available

in vivo Assays

- Bioconjugate evaluated for efficacy, biodistribution, PK and GLP Tox using various animal models ranging from rodents to NHPs
- Supported by full clinical chemistry/histopathology service
- Subsequent bioanalytical assays performed in different matrices (e.g., whole blood or plasma)

