

ANTIBODY-DRUG CONJUGATE (ADC) SOLUTIONS

ADC Preparation Kits and Tailored Services

CellMosaic ADC PerKits™ are available to prepare antibody conjugates either through surface amines or reduced thiols. Kits are complete with all reagents and procedures for attaching the selected payload directly to your antibody and purifying the final ADC. A typical ADC kit starts with 1-3 mg of antibody and results in an ADC with 40-60% recovery in buffer and an average drug-to-antibody ratio (DAR) of 2-4. Purities are typically >90% for the conjugates free of or with less than 2% of unreacted payload. CellMosaic currently provides the following ADC PerKits™, and we are adding additional kit configurations as needed. Please inquire if you do not see your current configuration of interest listed.

Name	Product No.
Antibody-Doxorubicin Conjugation Kit	CM11406 (x3)
Antibody-Methotrexate Conjugation Kit	CM11407 (x3)
Antibody-SN38 Conjugation Kit	CM11408 (x3)
Antibody-MMAE Conjugation Kit (with VC-PAB Linkage)	CM11409 (X3)
Antibody-Mertansine (DM1) Conjugation Kit	CM11410 (X3)
F(ab') ₂ -MMAE Conjugation Kit (with VC-PAB Linkage)	CM11416 (X3)
F(ab') ₂ -DM1 Conjugation Kit	CM11419 (X3)
Antibody-Mc-MMAF Conjugation Kit	CM11422 (x3)
Antibody-MMAF Conjugation Kit (with VC-PAB Linkage)	CM11425 (x3)
Antibody Small Molecule Acid Conjugation Kit	CM51403

CellMosaic also offers tailored services for these PerKit™

Name	Product No.
Thiol Assay Kit with Purification (for optimization of DAR for CM11409, CM11422, CM11416, and CM11425)	CM90005
Antibody PerKit™ Customization for Lower Amount (less than 1 mg of antibody)	AS1003
PerKit™ Custom Conjugation at CellMosaic	AS1002

Stabilizing Buffers for ADC

CellMosaic has developed proprietary ADC-stabilizing buffers that can be used for long-term storage of ADCs. The buffers contain stabilizers to prevent the hydrophobic drugs from interacting with one another and keep the ADCs in solution when stored below freezing. Stabilizers also help preserve the structure of the ADCs during lyophilization. After lyophilization, ADCs can be dissolved in

deionized water without changing their properties. Lyophilized ADCs can also be shipped or stored at RT temporarily. Stabilizing buffers are biocompatible and will not interfere with any *in vitro* or *in vivo* studies. The buffer does not contain preservative, protease inhibitors, reducing agents, metal chelators such as EDTA, or other carrier proteins. If needed, all buffer components can be removed by dialysis or desalting before use in downstream assays.

Name	Qty	Product No.
ADC Stabilizing PBS Buffer (5x)	5 mL	CM02022
ADC Stabilizing Citrate Buffer (5x)	5 mL	CM02023
ADC Stabilizing General Buffer (5x)	5 mL	CM02024

ADC Analysis Reagents

HPLC analysis is a useful tool to analyze ADC. CellMosaic has designed the size exclusion chromatography (SEC) HPLC standards and hydrophobic interaction chromatography (HIC) buffer set for customer's convenient analysis of ADCs in house.

Name	Product No.
SEC (Gel filtration) HPLC Protein Standard (7 components, lyophilized)	CM92004
SEC (Gel filtration) HPLC Low Molecule Weight (LMW) Protein Standard	CM92005
Hydrophobic Interaction Chromatography Buffer Set (for HPLC analysis)	CM02025

Analysis Services for ADCs

CellMosaic provides supporting services for ADC analysis. Customers have the option to choose to send the sample to CellMosaic for HPLC analysis and determination of the DAR (No setup fee).

Name	Product No.
SEC HPLC Analysis	AS0023
HIC HPLC Analysis	AS0025

Custom Conjugation Services for Specialized ADCs, ADC Development, and Scaling Up

CellMosaic offers a complete antibody-drug conjugate (ADC) discovery and development program for pharmaceutical and biotech companies based on classical linkers and our advanced conjugation processes. Each antibody is unique, as the particular linker and chemistry that works for one ADC may not apply to others. CellMosaic has the in-house capability and expertise to devise and execute appropriate strategies to fit your ADC development plan.

The services we provide include:

- ✓ **Custom design and development of linker and conjugation strategies** to fit customers' needs (customer owns the rights for the compound).
- ✓ **Proof-of-concept Studies:** CellMosaic has in-house ADC processes (through surface amine or reduced thiol) to quickly synthesize ADCs for initial proof-of-concept studies.
- ✓ **ADC Discovery:**
 - Screening small drug molecules to optimize ADC performance
 - Evaluation of the antibody labeling sites (surface amines vs. reduced thiol)
 - Evaluation of the linkage chemistry (stable vs. cleavable)
 - Evaluation of the linker lengths
- ✓ **ADC Development:**
 - Stability studies
 - Development of purification method for ADCs
 - Development of bio-analytical methods (HIC, SEC, cation or anion exchange, MS)
 - pK studies of ADCs in blood and tissue extracts
 - Formulation studies
- ✓ **Process Development**
- ✓ **Process Transfer**

Proprietary Water Soluble AqT™ Linkers for Novel ADC Development

In the event an ADC cannot be made using classical linkers or the ADC effectiveness is compromised by the number of toxins loaded onto the antibody, AqueaTether™ (AqT™) Therapeutics, a separate division of CellMosaic, has developed novel super-hydrophilic and high-loading AqT™ linkers specifically to solve these problems. To explore this opportunity and learn more about AqT™ platform technologies, please visit our website at aqttherapeutics.com

