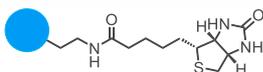


Bioconjugation Service

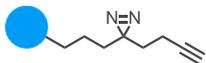
Bioconjugation in Early Drug Discovery

Target Identification

Biotin conjugation



PAL group conjugation



Fluorescence labeling

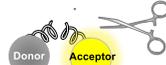


Hit Finding

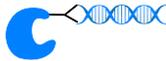
Tb/Eu labeling for HTS



Enzymatic FRET substrate

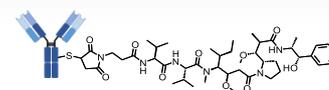


Oligonucleotide coding

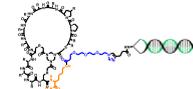


Efficiency Optimization

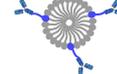
Antibody-based conjugation



Peptide-based conjugation



LNP-based conjugation



More than 20 years of organic synthesis experience from WuXi Chemistry.



Integrated screening platform, biochemical & biophysics modalities from WuXi Biology.



Experienced in providing diverse bioconjugation services throughout early discovery stage.

Conjugation Types

Macro-Molecules



Protein



Antibody



Peptide



Oligonucleotide

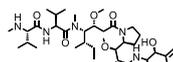


Beads

Linkers



Payloads



Toxin



Antigen



Si-RNA



Fluorophore

Chemistries & Linkers

Lysine

- Amide
- Carbamate
- Urea

Cysteine / Cystine

- Thioether
- Disulfide
- SMG

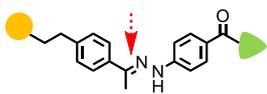
Non-natural Modification

- Click
- PAC
- Michael addition
- Hydrazone

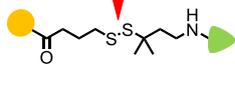
Tags

- His-tag – NTA
- Halo-tag – Chloroalkane
- Snap-tag – OBG

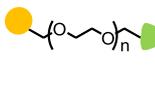
Cleavable linkers



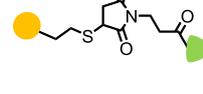
Hydrazone linker



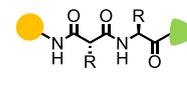
Disulfide linker



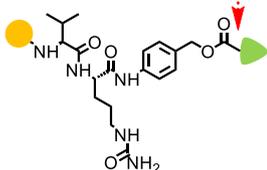
PEG linker



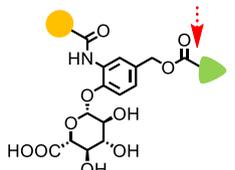
Thioether linker



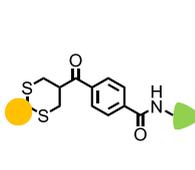
Peptide linker



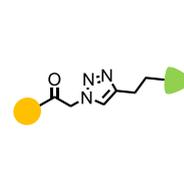
Peptide linker



Glucuronide linker



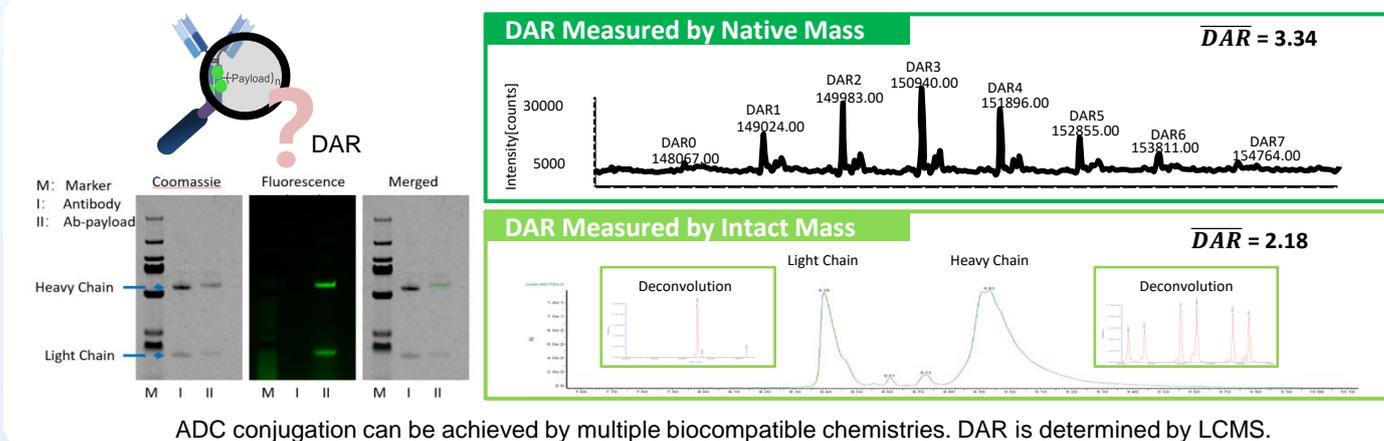
SGM linker



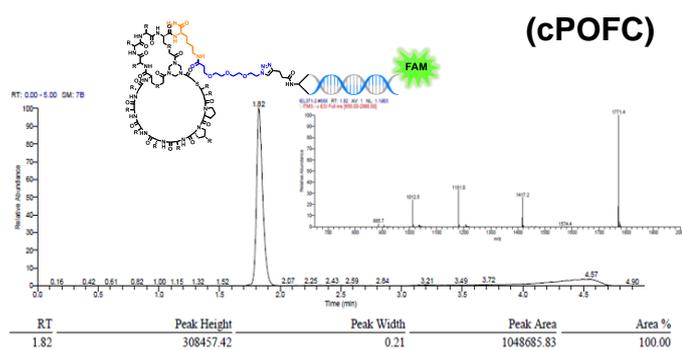
Triazole linker

Showcases and QC Methods

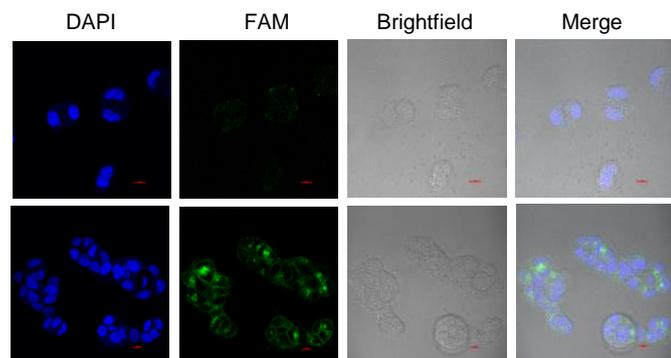
Antibody-Drug Conjugate (ADC) and DAR Measurement



Cyclic Peptide-Oligomer-FAM Conjugate (cPOFC)



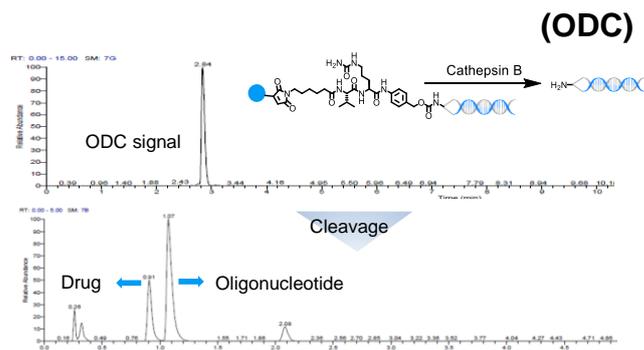
The conjugate is connected by click chemistry, QC by LCMS.



Upper row: Cell incubated with Oligonucleotide-FAM conjugate.
Bottom row: Cell incubated with cPOFC.

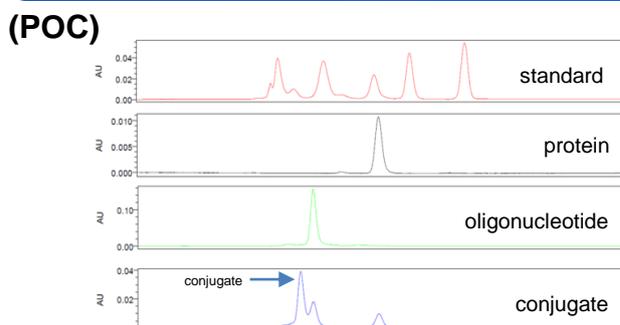
Cellular uptake of oligonucleotide is significantly increased by conjugating a cell penetration peptide.

Oligonucleotide-Drug Conjugate (ODC)



Cleavable Val-Cit-PAB linker can be quantitatively cleaved by cathepsin B and analyzed by LCMS.

Protein Oligonucleotide Conjugate (POC)



The conjugate is connected by NTA-His tag and analyzed by aSEC.



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