

ADC Discovery Service

One-stop solution from target to preclinical candidates (PCC) High-throughput internalization assay screening with antibodies supernatant

Antibody-Drug Conjugates (ADCs) are a class of targeted cancer therapies that combine the specificity of monoclonal antibodies with the potency of cytotoxic drugs. ADCs work by binding to specific antigens on cancer cells and delivering the attached cytotoxic drug directly into the cancer cell, resulting in selective killing of cancer cells while sparing healthy cells. Over the years, significant research efforts have been devoted to improving the efficacy and safety of ADCs, leading to a range of novel ADC designs and optimization strategies.

With 19 years of experience in antibody drug discovery, GenScript ProBio offers one-stop ADC discovery services to accelerate customers' R&D speed from target to preclinical candidate (PCC), and seize the hottest development track.



Balancing Functionality And Safety

- High-throughput internalization assay screening with antibodies supernatant
- Conduct pharmacology studies before antibody humanization to evaluate efficacy and safety



One-stop ADC Discovery Solution

- Diverse antibody discovery technical capaigns
- 100+ ready-to-use payload-linker conjugates
- 7 types of ADC bioassay methods
- One-stop in vivo pharmacology solution for



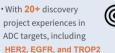
Excellent Track Record

- 20+ discovery project experiences in **ADC** targets
- 50+ ADC naked antibody discovery project experience
- 50+ ADC bioassay project experience

Bv Feb.2023

From Targets To Preclinical Candidate Molecules

Target Evaluation



Payload-linker Library

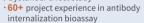


· 100+ ready-to-use payloadlinker conjugates

·700+ linkers

√Toxin-conjugated mAb based cytotoxicity assay; √ Bystander effect study 60+ project experience in antibody

In Vitro Bioassay



· 7 types of ADC bioassay methods:

√ Live-cell imaging-based Internalization;

Developability

 Tm, Tagg, purity, solubility, thermal stability, freeze-thaw stability, etc.

Naked Antibody Discovery

Diverse antibody discovery technical campaigns Hybridoma, phage display, single B cell screening, fully human antibody discovery

· Different biologics modalities mAb, bsAb, sdAb, antibody fragment

· Functional assay in the screening stage:

√ High-throughput internalization assay screening with antibodies supernatant (>100 Abs)

√ Epitope binning to preserve the diversity of binding epitope

ADC Conjugation

Lysine-based Cysteine-based

Site-specific conjugation Purity by SEC-HPLC

DAR by HIC-HPLC



In Vivo Pharmacology

One-stop Service:

Pharmacodynamics, Pharmacokinetics, Toxicology

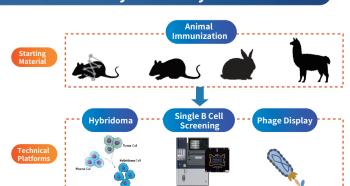
200+ tumor cell banks

80+ tumor cell models

Covering 24 tumor indications



Naked Antibody Discovery Platform



- With 19 years of antibody discovery experience, GenScript ProBio offers customers with a comprehensive route to naked antibody discovery, improving project success.
- GenScript ProBio conducts high-throughput internalization screening with antibodies supernatant to identify antibody leads with desirable internalization capability in the early discovery stage.











In Vitro Bioassay Platform for ADC

GenScript ProBio offers 7 diversified ADC detection methods to provide customers with diverse, efficient, and stable ADC bioassay platforms. In addition to traditional internalization detection based on pH probes and cell surface secondary antibody tracking, ProBio has upgraded ADC internalization detection schemes, providing toxin-conjugated mAb based cytotoxicity assay applicable for hybridoma supernatant screening and live-cell imaging based internalization. ProBio can also provide customers with bystander effect experiments to evaluate ADC efficacy and potential risks.

Scope	Internalization assay				Cytotoxicity assay		Bystander effect
Cell based assay	Live-cell imaging based internalization 6	Toxin-conjugated mAb based cytotoxicity assay		pH-Indicator based internalization	Temperature shift based internalization	Cell growth inhibition assay	Medium transfer assay
General designation	Incucyte	DT3C	FabFc-ZAP	pHrodo	Temperature shift	Cytotoxicity assay	Bystander effect
Molecule	Naked antibody					ADC or toxin	ADC
Analyzer	Live-cell analyzer	Microplate reader		FACS	FACS	Microplate reader/ Live-cell analyzer	Microplate reader
Feature	Real-time and w kinetics analysis	High sensitivity High throughput close to the cytotoxic MOA		Specific	Cost-effective Susceptible to multiple factors	High throughput	Simultaneous detection: Ag+ cell cytotoxicity and ag- bystander effect
Application	Most versatile Best choice 🔓	Full range Cost-effective Alternative choice	High material cost	Client favor	For clients with limited budget	Full range	Bystander effect potential security

- 80+ positive reference antibody dose-response curve (freely available)
- Target cells 200+ tumor cell lines and 100+ overexpression cell lines were provided free of charge

In Vivo Pharmacology for ADC

ProBio offers a range of *in vivo* pharmacology service, including animal-based *in vivo* efficacy, pharmacokinetics, toxicology research, and biomarker-based detection, to meet the compliance requirements for new drug applications, and help you achieve faster, better, and more cost-effective new drug development.

One-stop ADC in vivo pharmacology solution

Key Material Screening

ADC Preparation

In Vivo Efficacy

Ex & In Vivo PK Package Ex & In Vivo Toxicity

Extensive model resource

- · Abundance of mouse strains
- ·6 tumor bearing animal models
- ⋅80+ Tumor cell models
- · 200+ Tumor cell banks
- · 24 Tumor indications

Pharmacokinetic experiments

- · Method development and validation
- · Pharmacokinetic experiments in cynomolgus monkeys and other primates
- · Tissue distribution experiment
- · Receptor mass experiments

Toxicological studies

- ·Toxicity with a single administration
- · Dose exploration experiments
- ·Long-term toxicity testing
- · Local toxicity
- ·Tissue cross-reactivity experiments





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