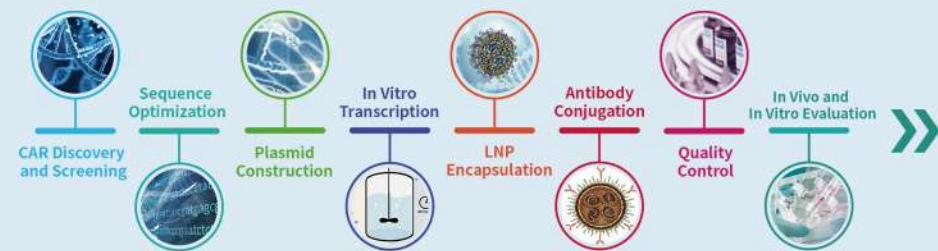


Building on foundational innovation to identify therapeutic targets, Synthgene utilizes intelligent algorithms to optimize molecular performance. By applying the proprietary technology to overcome common delivery challenges and maintaining rigorous quality control, Synthgene provides efficient, secure, and adaptable mRNA-CAR solutions for precision oncology, supporting the steady translation of new therapies from the laboratory to the clinic.

Our Services



Our Advantages

- 
CAR Molecule Discovery:
 Managing the development process to define therapeutic targets and facilitate clinical translation.
- 
Sequence Optimization:
 Utilizing algorithms and experimental data to achieve high expression, low immunogenicity, and sustained persistence.
- 
Plasmid Construction:
 Combining efficient assembly with rigorous QC to provide reliable templates for downstream in vitro transcription.
- 
In Vitro Transcription:
 Employing efficient synthesis and precise modification to secure core raw materials for clinical-grade mRNA products.
- 
LNP Encapsulation:
 Utilizing an LNP library for various tissues and microfluidic platforms for continuous, precise delivery.
- 
Antibody Conjugation:
 Using mild, site-specific conjugation and active targeting to improve tissue specificity and safety profiles.
- 
Quality Control:
 Maintaining a comprehensive QC system from raw materials to final products to ensure reliability for clinical studies.
- 
In Vivo and In Vitro Evaluation:
 Performing multi-dimensional validation to establish the safety and efficacy foundations for clinical transition.



Contact Us

Synthgene Biotechnology Co., Ltd.



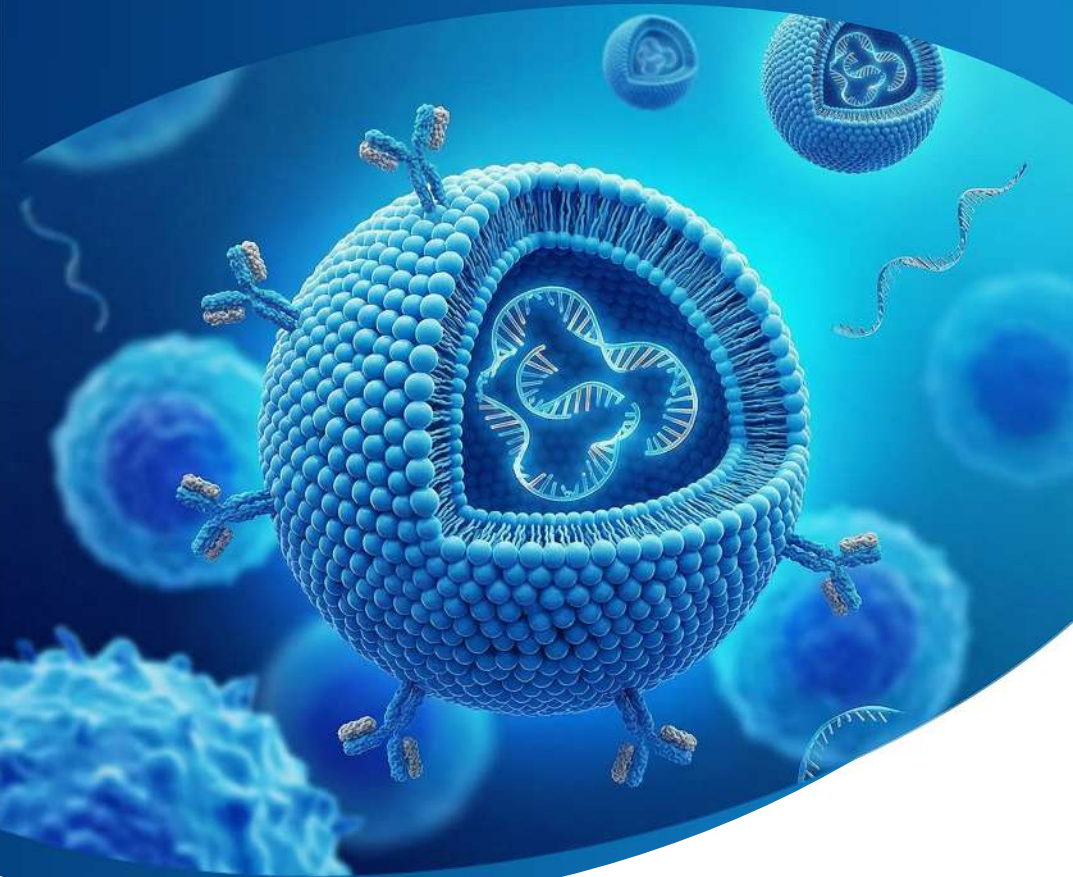
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Redefining Cell Therapy

**Powering In Vivo CAR-T
 with Raw Materials and
 Research Partnership**



mRNA
 Raw Materials



Nucleic acid



Molecular Diagnosis
 Raw Materials

+86(025)83696681

Type	Catalog Number	Product Name
CAR-mRNA Standards	11055	CD19-CAR mRNA with N1-Me-pUTP(5'CAP)
	11056	CD20-CAR mRNA with N1-Me-pUTP(5'CAP)
	11057	CD22-CAR mRNA with N1-Me-pUTP(5'CAP)
	11058	CD117-CAR mRNA with N1-Me-pUTP(5'CAP)
	11059	BCMA-CAR mRNA with N1-Me-pUTP(5'CAP)
	11060	FAP-CAR mRNA with N1-Me-pUTP(5'CAP)
	11061	Claudin 18.2-CAR mRNA with N1-Me-pUTP(5'CAP)
	11062	EGFR-CAR mRNA with N1-Me-pUTP(5'CAP)
Antibody Standards	Ab-Syth-001	anti- CD8 Antibody (mouse, IgG)
	Ab-Syth-002	anti- CD8 Antibody (human, IgG)
	Ab-Syth-004	anti- CD7 Antibody (mouse, IgG)
	Ab-Syth-005	anti- CD7 Antibody (human, IgG)
Ab-LNP Standards	14001	CD3-LNP (eGFP)
	14002	CD5-LNP (eGFP)
	14003	CD7-LNP (eGFP)
	14004	CD8-LNP (eGFP)
	14005	CD3-LNP (Fluc)
	14006	CD5-LNP (Fluc)
	14007	CD7-LNP (Fluc)
	14008	CD8-LNP (Fluc)
Conjugation Kits	10116	Antibody LNP Conjugation Kit

Highlight

Focusing on the core CD8 target, Synthgene has built a complete technical system from R&D to GMP production. By offering both R&D-grade and clinical-grade antibodies in parallel, we bridge the "last mile" of mRNA-CAR industrialization, significantly increasing project implementation speed and scalability.



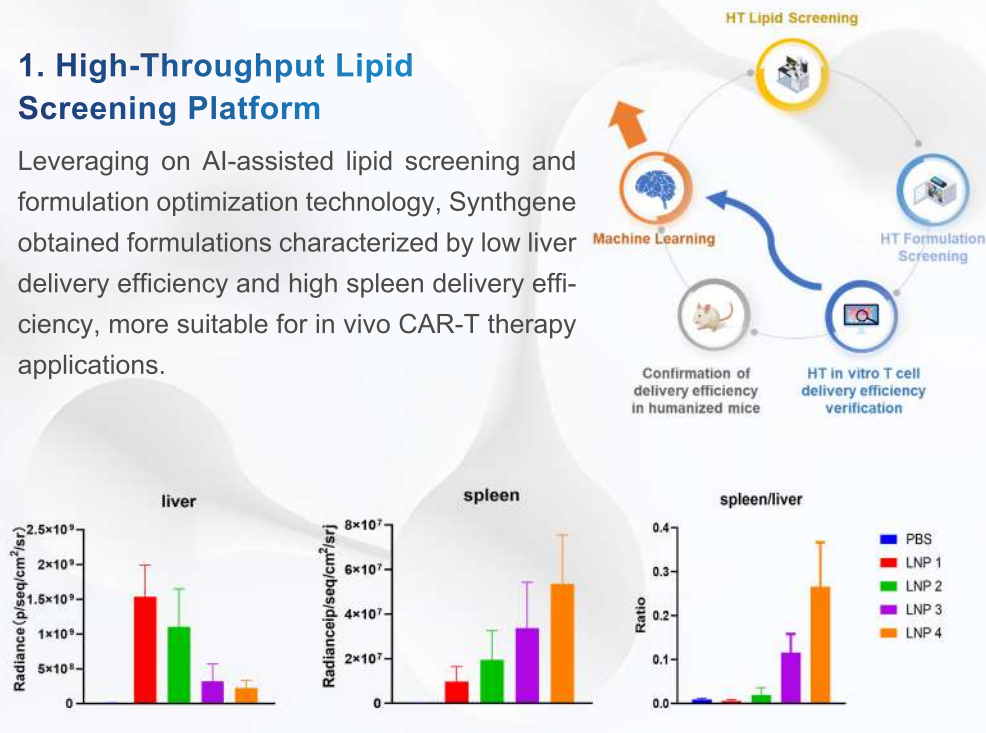
Antibody LNP Conjugation Kit

Core Advantages

1. The kit comes pre-equipped with all necessary supporting reagents for surface conjugation, including antibodies, eliminating the difficulties of multi-component procurement.
2. Provides detailed operating instructions to help researchers get started quickly and achieve consistent result

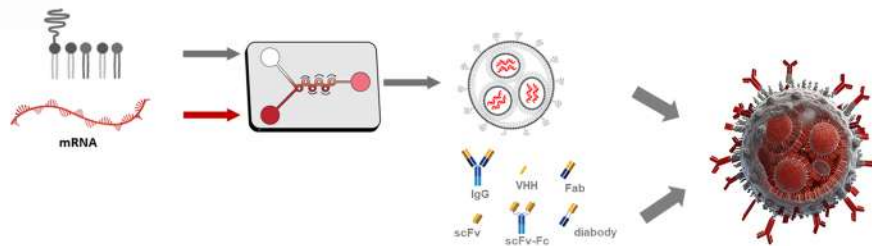
1. High-Throughput Lipid Screening Platform

Leveraging on AI-assisted lipid screening and formulation optimization technology, Synthgene obtained formulations characterized by low liver delivery efficiency and high spleen delivery efficiency, more suitable for in vivo CAR-T therapy applications.



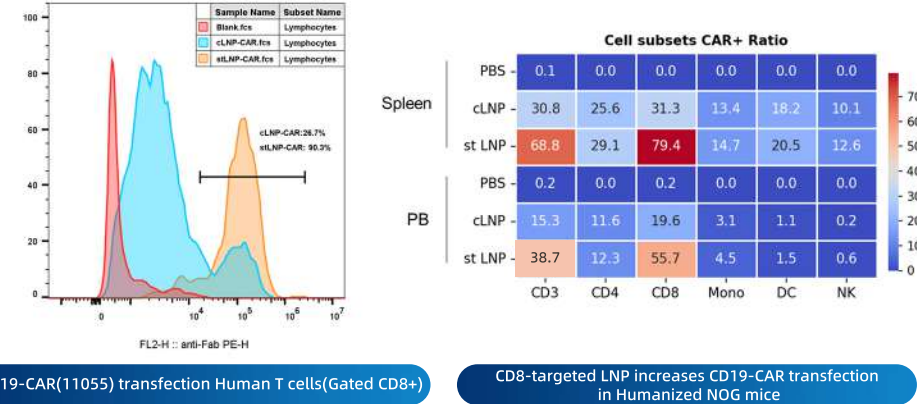
2. Antibody-LNP Conjugation Platform

Empowered by its core R&D strength, Synthgene has built a standardized conjugation platform compatible with various antibody types. With excellent compatibility and flexible scalability, providing solid technical support for the R&D and production of antibody-conjugated LNPs (Ab-LNPs).



Small scale	mRNA-LNP	Size(nm)	PDI	EE(%)
LNP	CD19 CAR mRNA-LNP	96.7	0.08	98
	eGFP mRNA-LNP	104.2	0.08	96
LNP-Ab	CD19 CAR mRNA-tLNP	98.4	0.11	97
	eGFP mRNA-tLNP	112.6	0.06	96

Large scale	mRNA-LNP	Size(nm)	PDI	EE(%)
LNP	tdTomato-LNP	88.05	0.17	93
	CD 19 CAR-LNP	89.72	0.16	92
LNP-Ab	td Tomato-tLNP	89.15	0.13	90
	CD19 CAR-tLNP	96.91	0.14	95



CD19-CAR(11055) transfection Human T cells(Gated CD8+)

CD8-targeted LNP increases CD19-CAR transfection in Humanized NOG mice



3. tLNP Quality Control Platform

Synthgene's nano-flow cytometry detection platform, centered on precisely quantifying the antibody positivity rate and copy number on the tLNP surface, establishes the correlation basis for in vivo CAR-T therapy release and constructs a standardized quality evaluation system.

