

# One-Stop Cell Line Solutions

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*Empowering Drug Development,  
Accelerating Innovation*

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## One-Stop Cell Line Solutions

Cell lines are indispensable tools in modern drug discovery and development, particularly in the field of targeted therapeutics. From early-stage target validation to high-throughput screening and functional evaluation, engineered cell lines enable researchers to model disease mechanisms and assess drug efficacy with precision and reproducibility.

With cutting-edge technology platforms, **ACROBiosystems is committed to providing end-to-end, high-standard cell line solutions for biopharmaceutical research and development.** Our offerings span every critical stage—from genetic engineering and functional validation to assay development and global commercial license. **Through scientifically rigorous cell model design, robust quality control systems, and comprehensive global license support service,** we support our partners in efficiently advancing drug development pipelines— from early-stage mechanism-of-action (MOA) exploration to final product launch.

In terms of cell line construction, we offer a portfolio of highly optimized overexpression cell lines, reporter gene cell lines, and gene knockout cell lines. **Each cell line undergoes systematic functional validation to ensure it faithfully recapitulates drug mechanisms of action:**

- **Overexpression cell lines come with extensive application data to support method development and assay validation.**
- **Reporter cell lines are engineered for high activity and wide detection windows, ensuring stable and reproducible performance in functional assays.**
- **Gene knockout cell lines are validated through both FACS and genomic sequencing to guarantee accurate and reliable gene disruption, providing robust support for target validation and pharmacological evaluation.**

To ensure long-term data stability and experimental reproducibility, we have established a stringent quality control framework. All cell lines are traceable to internationally recognized cell banks and undergo multi-passage stability testing to ensure that key performance indicators—such as gene expression level and pathway activity—remain consistent over extended culture periods. We also provide full documentation, including cell culture history, gene editing strategies, and functional validation reports, fully supporting GLP/GMP compliance and regulatory submissions.

**In terms of commercial support, we offer flexible global license support service that include usage rights for HEK293, CHO, Jurkat, and Raji cell line;** rights to genetically modify or develop derivatives; global distribution rights; and full commercial use authorization. Our license support service not only ensure legal and compliant use of our cell models in drug development but also support the downstream commercialization of products, effectively mitigating intellectual property risks. Whether for academic research, drug screening, clinical production, or commercial deployment, ACROBiosystems delivers **compliant, reliable, and efficient cell line solutions** that accelerate the translation of innovative therapies from bench to market.

**Partnering with ACROBiosystems means more than accessing high-quality cell lines—it's gaining a trusted ally across the entire journey from science to commercialization.** With deep technical expertise and comprehensive legal support, we empower you to overcome R&D challenges and achieve faster drug approval and market success.

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# Reporter Cell Line

Introduction | Application Scenarios | Product Features | Product List | Verification Data

## Introduction

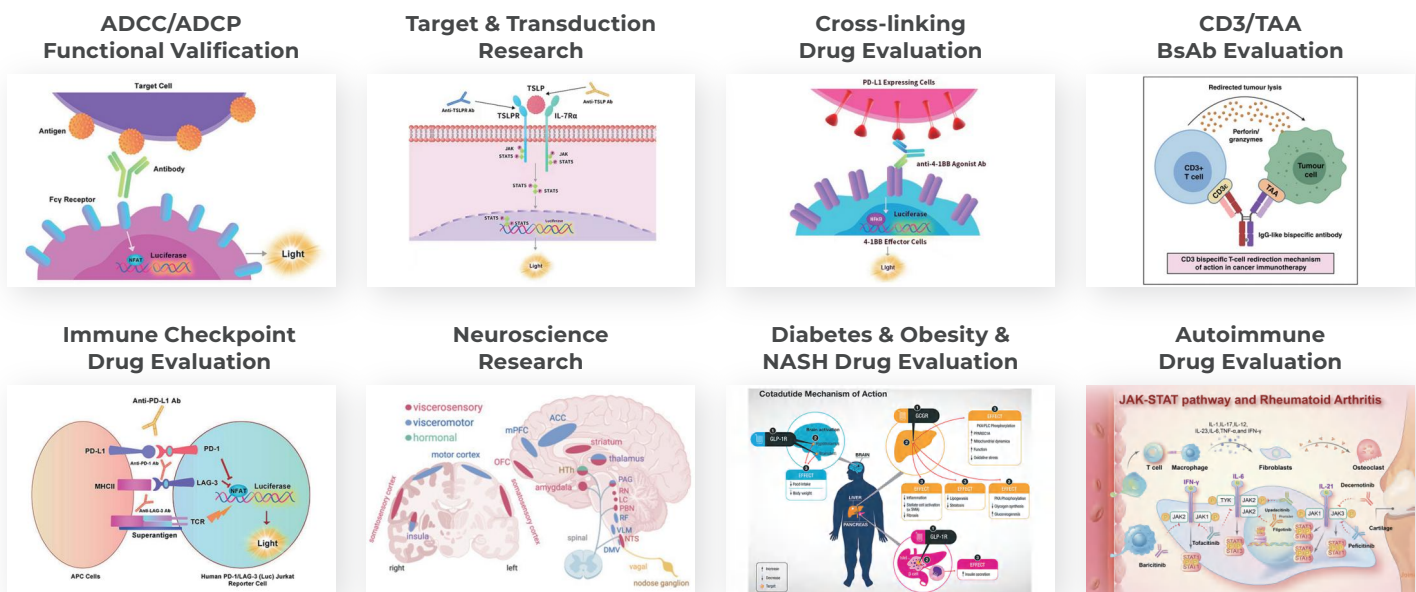
Cellular-level evaluation is a key indicator for drug efficacy *in vitro* and is widely used throughout the drug development process. However, when using conventional cells, many traditional analytical methods have disadvantages including low sensitivity, poor reproducibility, complicated operations, and low throughput. This is further exacerbated by the batch-to-batch variation in primary cells, and results in a significant bottleneck during antibody drug development.

Instead of using traditional cells, **our reporter cell lines are constructed using genetic engineering to help standardize and minimize the batch-to-batch variation during cell passaging.** Reporter cell lines are based on the drug mechanism of action (MOA) and helps various studies, including:

- ✔ Establish the correlation between the target transduction signal and the reporter gene expression in the cell.
- ✔ Monitor the target signaling pathway by detecting the expression of the reporter gene transduction.

To meet the needs of new drug development, **ACROBiosystems uses a luciferase reporter gene system to establish a reporter gene cell platform and continues to develop a series of high-quality reporter gene cell line products.** The series of cell line products are verified for functionality and stability and designed to be applied to signal transduction function research, early drug discovery and screening, and CMC quality control release!

## Application Scenarios



## Product Features

- ✔ Genetically modified cell lines best reflect MOA (Mechanism of Action).
- ✔ Higher activity and larger assay window for robust and reproducible cell-based bioassay.
- ✔ Comprehensive application data to support assay development and validation.
- ✔ Full traceable record, stringent quality control and validated cell passage stability.
- ✔ Parental cell line legally obtained from internationally recognized cell resource bank and commercially licensed.
- ✔ Global commercial license assistance whenever regulatory filing is required.

## Product List

### - ADCC/ADCP Functional Verification

Molecule	Cat. No.	Product Description
Fc gamma RI / CD64	SCJUR-STF072	Human CD64 (Luc) Jurkat Reporter Cell Line
Fc gamma RIIA / CD32a	SCJUR-STF069	Human CD32a (I31H) (Luc) Jurkat Reporter Cell Line
	SCJUR-STF070	Human CD32a (I31R) (Luc) Jurkat Reporter Cell Line
Fc gamma RIIB / CD32b	SCJUR-STF071	Human CD32b (Luc) Jurkat Reporter Cell Line
Fc gamma RIIIA / CD16a	SCJUR-STF067	Human CD16a (I58V) (Luc) Jurkat Reporter Cell Line
	SCJUR-STF068	Human CD16a (I58F) (Luc) Jurkat Reporter Cell Line

### - Target & Transduction Research

Molecule	Cat. No.	Product Description
BMP	CHEK-ATF188	Human BMP (Luc) HEK293 Reporter Cell Line
EGF R-STAT3	CHEK-ATF049	Human EGF R (Luc) HEK293 Reporter Cell Line
GLP2R	CHEK-ATF128	Human GLP-2R (Luc) HEK293 Reporter Cell Line
HGF R	CHEK-ATF144	Human c-MET (Luc) HEK293 Reporter Cell Line
ISRE	CHEK-ATF134	ISRE (Luc) HEK293 Reporter Cell Line
NF-κB	CHEK-ATF048	NF-κB (Luc) HEK293 Reporter Cell Line
NF-κB	SCJUR-STF113	NF-κB (Luc) Jurkat Reporter Cell Line
NFAT	CHEK-ATF050	NFAT (Luc) HEK293 Reporter Cell Line
TCF/LEF	CHEK-ATF114	TCF/LEF (Luc) HEK293 Reporter Cell Line
TGF-beta 1	CHEK-ATF145	Human TGF-beta R (Luc) HEK293 Reporter Cell Line
VEGF R2	CHEK-ATF044	Human VEGF R2 (Luc) HEK293 Reporter Cell Line

### - Cross-linking Drug Evaluation

Molecule	Cat. No.	Product Description
4-1BB	CHEK-ATF073	Human 4-1BB (Luc) HEK293 Reporter Cell Line

### - CD3/TAA BsAb Evaluation

Molecule	Cat. No.	Product Description
NFAT	SCJUR-STF046	NFAT (Luc) Jurkat Reporter Cell Line

### - Neuroscience Research

Molecule	Cat. No.	Product Description
5-HT1A	CHEK-ATF131	Human 5-HT1A (Luc) HEK293 Reporter Cell Line
TrkA	CHEK-ATF093	Human TrkA (Luc) HEK293 Reporter Cell Line

### - Immune Checkpoint Drug Evaluation

Molecule	Cat. No.	Product Description
LAG-3	SCJUR-STF065	Human LAG-3 (Luc) Jurkat Reporter Cell Line
NKp46	SCJUR-STF130	Human NKp46 (Luc) Jurkat Reporter Cell Line
PD-1	SCJUR-STF064	Human PD-1 (Luc) Jurkat Reporter Cell Line
PD-1/LAG-3	SCJUR-STF063	Human PD-1/LAG-3 (Luc) Jurkat Reporter Cell Line
TIGIT	SCJUR-STF066	Human TIGIT (Luc) Jurkat Reporter Cell Line Line

### - Diabetes & Obesity & NASH Drug Evaluation

Molecule	Cat. No.	Product Description
Activin RII	CHEK-ATF164	Human Activin RII (Luc) HEK293 Reporter Cell Line
AMY3R (CTR&RAMP3)	SCBHK-ATF231	Human APJ R (Luc) HEK293 Reporter Cell
APJ R	CHEK-ATF242	Human CTR (Luc) BHK 21 Reporter Cell Line Development Service
CTR	SCBHK-ATF230	Human CTR (Luc) BHK 21 Reporter Cell Line Development Service
FGF-21	CHEK-ATF163	Human FGF-21 (Luc) HEK293 Reporter Cell Line
GCCR	CHEK-ATF103	Human GCCR (Luc) HEK293 Reporter Cell Line
GIPR	CHEK-ATF104	Human GIPR (Luc) HEK293 Reporter Cell Line
GLP1R	CHEK-ATF096	Human GLP-1R (Luc) HEK293 Reporter Cell Line
THRA	CHEK-ATF180	Human THRA (Luc) HEK293 Reporter Cell Line
THRB	CHEK-ATF181	Human THRB (Luc) HEK293 Reporter Cell Line

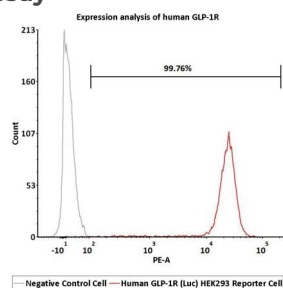
### - Autoimmune Drug Evaluation

Molecule	Cat. No.	Product Description
BTLA	SCJUR-STF106	Human BTLA (Luc) Jurkat Reporter Cell Line
CD40	CHEK-ATF097	Human CD40 (Luc) HEK293 Reporter Cell Line
DR3	SCJUR-STF178	Human DR3 (TLIA receptor) (Luc) Jurkat Reporter Cell Line
HVEM	CHEK-ATF105	Human HVEM (Luc) HEK293 Reporter Cell Line
IGF-1 R	CHEK-ATF107	Human IGF-1 R (Luc) HEK293 Reporter Cell Line
IL-1 R1 & IL-1 RAcP	CHEK-ATF202	Human IL-1 R1 & IL-1 RAcP (Luc) HEK293 Reporter Cell Line
IL-10 R alpha/IL-10 R beta	CHEK-ATF095	Human IL-10 R alpha/IL-10 R beta (Luc) HEK293 Reporter Cell Line
IL-11 R alpha	CHEK-ATF052	Human IL-11 R alpha (Luc) HEK293 Reporter Cell Line
IL-17 RA & IL-17 RC	CHEK-ATF133	Human IL-17 RA/IL-17 RC (Luc) HEK293 Reporter Cell Line
IL-2 R beta & IL-2 R gamma	CHEK-ATF136	Human IL-2 R beta/IL-2 R gamma (Luc) HEK293 Reporter Cell Line
IL-2 R beta & IL-2 R gamma & IL-2 R alpha	CHEK-ATF201	Human IL-2 R alpha & IL-2 R beta & IL-2 R gamma (Luc) HEK293 Reporter Cell Line
IL-21 R	CHEK-ATF051	Human IL-21 R/CD132 (Luc) HEK293 Reporter Cell Line
IL-22 R alpha 1/IL-10 R beta	CHEK-ATF167	Human IL-22 R alpha 1/IL-10 R beta (Luc) HEK293 Reporter Cell Line

Molecule	Cat. No.	Product Description
IL-23 R/IL-12 R beta 1	CHEK-ATF166	Human IL-23 R/IL-12 R beta 1(Luc) HEK293 Reporter Cell Line
IL-31 RA / OSMR	CHEK-ATF094	Human IL-31 RA/OSMR (Luc) HEK293 Reporter Cell Line
IL-4 R alpha/IL-13 R alpha 1	CHEK-ATF075	Human IL-4 R alpha/IL-13 R alpha 1 (Luc) HEK293 Reporter Cell Line
IL-5 R alpha/CD131	CHEK-ATF074	Human IL-5 R alpha/CD131 (Luc) HEK293 Reporter Cell Line
IL-7 R alpha & IL-2 R gamma	CHEK-ATF099	Human IL-7 R alpha/CD132 (Luc) HEK293 Reporter Cell Line
IL-7 R alpha & TSLP R	CHEK-ATF045	Human TSLP R (Luc) HEK293 Reporter Cell Line
OX40	CHEK-ATF135	Human OX40 (Luc) HEK293 Reporter Cell Line
PTH1R	CHEK-ATF194	Human PTH1R (Luc) HEK293 Reporter Cell Line
RANK	CHEK-ATF129	Human RANK (Luc) HEK293 Reporter Cell Line
STAT3	CHEK-ATF047	STAT3 (Luc) HEK293 Reporter Cell Line
TAC1	CHEK-ATF197	Human TAC1 (Luc) HEK293 Reporter Cell Line
TPO R	CHEK-ATF226	Human TPO R (Luc) HEK293 Reporter Cell Line
TSHR	CHEK-ATF187	Human TSHR (Luc) HEK293 Reporter Cell Line

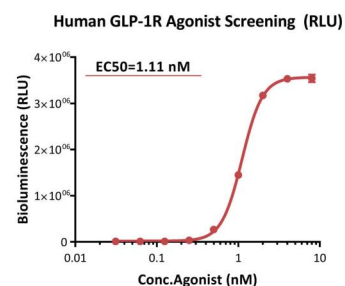
## Verification Data

### - Receptor Assay



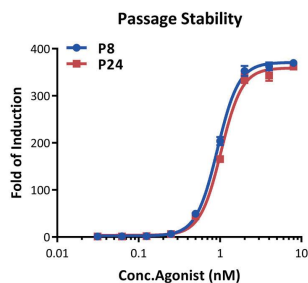
Expression analysis of human GLP-1R on Human GLP-1R (Luc) HEK293 Reporter Cell Line by FACS. Cell surface staining was performed on Human GLP-1R (Luc) HEK293 Reporter Cell Line or negative control cell using PE-labeled anti-human GLP-1R antibody.

### - Application



Bioactivity analysis of human GLP-1R agonist (RLU). This reporter cell line was incubated with serial dilutions of Tirzepatide (a dual GLP-1R and GIPR agonist). The EC50 of Tirzepatide was approximately 1.11 nM.

### - Passage Stability



	P8	P24
EC50(nM)	0.93	1.03
Max Fold	369.80	362.24

#### Passage stability analysis by Signaling Bioassay.

The continuously growing Human GLP-1R (Luc) HEK293 Reporter Cell Line was stimulated with serial dilutions of Tirzepatide (a dual GLP-1R and GIPR agonist). Tirzepatide stimulated response demonstrates passage stabilization (fold induction and EC50) across passage 8-24.

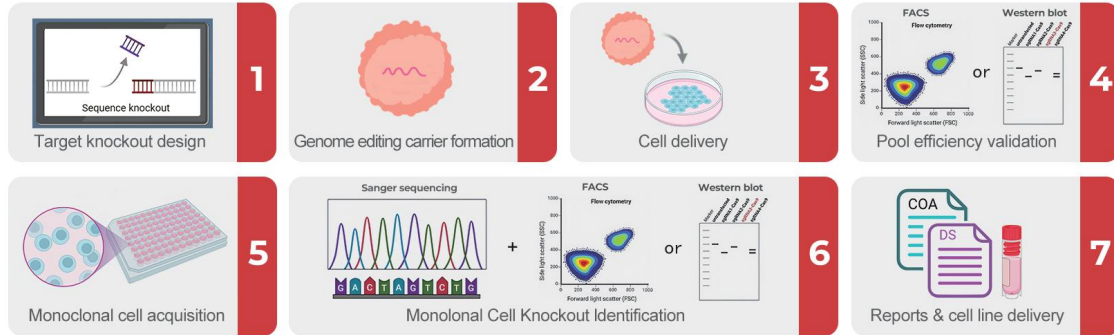


Scan the QR to learn more about reporter cell line



## Roadmap

### - Gene Knockout Method

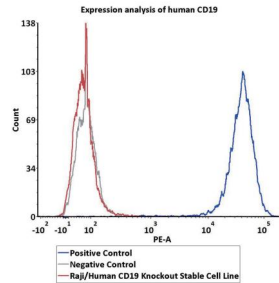


## Product List

Molecule	Cat. No.	Product Description
CD19	SCRAJ-STT216	Raji/Human CD19 Knockout Stable Cell Line
CD20	SCRAJ-STT227	Raji/Human CD20 Knockout Stable Cell Line
CD19 & CD20	CRAJ-STK238	Raji/Human CD19 & CD20 Double Knockout Stable Cell Line

## Verification Data

### - Receptor Assay



#### Expression analysis of human CD19 on Raji/Human CD19 Knockout Stable Cell Line by FACS.

Cell surface staining was performed on Raji/Human CD19 Knockout Stable Cell Line using PE-labeled anti-human CD19 antibody. The Raji cells were stained with PE-labeled anti-human CD19 antibody as the positive control cell. The Raji cells were stained with PE-labeled isotype control antibody as the negative control cell.

### - Sequencing Analysis



#### Genomic Sequencing of human CD19 in the Raji/Human CD19 Knockout Stable Cell Line.

Sanger sequencing was used for analysis of CRISPR-mediated mutations. The sequencing results demonstrated that the selected sgRNA worked effectively with Cas9 on human CD19 gene in the Raji/Human CD19 Knockout Stable Cell Line.



Scan the QR to learn more about gene knock out cell line

# Overexpression Cell Line

Introduction | Application Scenarios | Product Features | Product List | Verification Data

## Introduction

**Overexpression stable cell lines are a genetically modified stable cell line designed to continuously overexpress a specific gene.** A specific gene is designed to increase the expression level and subsequently introduced into cells using methods such as lentiviruses and electroporation to achieve 'Gain-of-Function'. The resulting cell then expresses the target antigen on the cell membrane surface, a function which is retained across multiple cell passages. This is a traditional molecular biology technique to study gene function which still plays a significant role in biological research.

**Based on the mature cell construction platform, ACROBiosystems continues to develop high-quality overexpression cell line products,** providing stable cell lines for gene research and development tool for new drug development!

## Application Scenarios

**Target & Transduction Research**

**Cross-linking Drug Evaluation**

**Immune Checkpoint Drug Evaluation**

**ADC Targeting& CAR-T Cell Therapy**

**Neuroscience Research**

**Diabetes & Obesity & NASH Drug Evaluation**

**Autoimmune Drug Evaluation**

## Product Features

- ✔ Genetically modified cell lines best reflect MOA (Mechanism of Action).
- ✔ Higher activity and larger assay window for robust and reproducible cell-based bioassay.
- ✔ Comprehensive application data to support assay development and validation.
- ✔ Full traceable record, stringent quality control and validated cell passage stability.
- ✔ Parental cell line legally obtained from internationally recognized cell resource bank and commercially licensed.
- ✔ Global commercial license assistance whenever regulatory filing is required.

## Product List

### - Target & Transduction Research

Molecule	Cat. No.	Product Description
ASGR1	CHEK-ATP080	HEK293/Human ASGR1 Stable Cell Line
ASGR1&ASGR2	CHEK-ATP172	HEK293/Human ASGR1&ASGR2 Stable Cell Line

Molecule	Cat. No.	Product Description
CCR5	CHEK-ATP043	HEK293/Human CCR5 Stable Cell Line
IDH1(132H)-P2A-mGFP&Luc	CHEK-ATP199	HEK293/Human IDH1(132H)-P2A-mGFP&Luc Stable Cell Line
IDH1(132R)-P2A-mGFP&Luc	CHEK-ATP200	HEK293/Human IDH1(132R)-P2A-mGFP&Luc Stable Cell Line
NY-ESO-1	CHEK-STP114	NY-ESO-1 specific TCR-HEK293 cell line
SIRP alpha	CHEK-ATP051	HEK293/Human SIRP alpha Stable Cell Line
TMPRSS2	CHEK-ATP101	HEK293/Human TMPRSS2-HA-P2A-mGFP Stable Cell Line

#### - Cross-linking Drug Evaluation

Molecule	Cat. No.	Product Description
CD16a (I58F)	SCCHO-ATP224	CHO/Human CD16a (I58F) Stable Cell Line
CD32a (I31R)	SCCHO-ATP223	CHO/Human CD32a (I31R) Stable Cell Line
Fc gamma RI / CD64	SCCHO-ATP062H	CHO/Human CD64 Stable Cell Line (High Expression)
	SCCHO-ATP062L	CHO/Human CD64 Stable Cell Line (Low Expression)
	SCCHO-ATP062M	CHO/Human CD64 Stable Cell Line (Medium Expression)
Fc gamma RIIA / CD32a	SCCHO-ATP061H	CHO/Human CD32a Stable Cell Line (High Expression)
	SCCHO-ATP061L	CHO/Human CD32a Stable Cell Line (Low Expression)
	SCCHO-ATP061M	CHO/Human CD32a Stable Cell Line (Medium Expression)
Fc gamma RIIB / CD32b	SCCHO-ATP060H	CHO/Human CD32b Stable Cell Line (High Expression)
	SCCHO-ATP060L	CHO/Human CD32b Stable Cell Line (Low Expression)
	SCCHO-ATP060M	CHO/Human CD32b Stable Cell Line (Medium Expression)
Fc gamma RIIIA / CD16a	SCCHO-ATP059H	CHO/Human CD16a (I58V) Stable Cell Line (High Expression)
	SCCHO-ATP059L	CHO/Human CD16a (I58V) Stable Cell Line (Low Expression)
	SCCHO-ATP059M	CHO/Human CD16a (I58V) Stable Cell Line (Medium Expression)
PD-L1	SCCHO-ATP077H	CHO/Human PD-L1 Stable Cell Line (High Expression)
	SCCHO-ATP077L	CHO/Human PD-L1 Stable Cell Line (Low Expression)
	SCCHO-ATP077M	CHO/Human PD-L1 Stable Cell Line (Medium Expression)

#### - Immune Checkpoint Drug Evaluation

Molecule	Cat. No.	Product Description
4-1BB	CHEK-ATP038	HEK293/Human 4-1BB / TNFRSF9 Stable Cell Line
4-1BB Ligand	CHEK-ATP039	HEK293/Human 4-1BB Ligand / TNFSF9 Stable Cell Line
BTLA	SCCHO-ATP110	CHO/Human BTLA Stable Cell Line
CD155	SCRAJ-STT076	Raji/Human CD155 Stable Cell Line
HVEM	CHEK-ATP147	HEK293/Human HVEM Stable Cell Line
	SCRAJ-STF108	Raji/Human HVEM Stable Cell Line

Molecule	Cat. No.	Product Description
LIGHT	SCCHO-ATP109	CHO/Human LIGHT Stable Cell Line
LILRB4	CHEK-ATP088	HEK293/Human LILRB4 Stable Cell Line
	SCCHO-ATP087	CHO/Human LILRB4 Stable Cell Line
NKp46	CHEK-ATP153	HEK293/Human NKp46 Stable Cell Line
PD-1	CHEK-ATP143	HEK293/Human PD-1 Stable Cell Line
PD-L1	SCRAJ-STT075	Raji/Human PD-L1 Stable Cell Line

#### - ADC Targeting & CAR-T Cell Therapy

Molecule	Cat. No.	Product Description
B7-H3 (4lg)	SCCHO-ATP169	CHO/Human B7-H3 (4lg) Stable Cell Line
B7-H4	CHEK-ATP126	HEK293/Human B7-H4 Stable Cell Line
BCMA	CHEK-ATP218	HEK293/Human BCMA Stable Cell Line
c-MET&ErbB3	CHEK-ATP217	HEK293/Human c-MET&ErbB3 Stable Cell Line
Cadherin-17	CHEK-ATP173	HEK293/Human Cadherin-17 Stable Cell Line
Cadherin-6	CHEK-ATP127	HEK293/Human Cadherin-6 Stable Cell Line
CCR8	CHEK-ATP140	HEK293/Human CCR8 Stable Cell Line
CD19	CHEK-ATP003	HEK293/Human CD19 Stable Cell Line
	CHEK-ATS056	HEK293/Human Anti-CD19 Stable Cell Line
CD20	CHEK-ATP034	HEK293/Human CD20 Stable Cell Line
CD79A & CD79B	SCCHO-ATP170	CHO/Human CD79A&CD79B Stable Cell Line
CD79B	SCCHO-ATP171	CHO/Human CD79B Stable Cell Line
CEACAM-5	CHEK-ATP083	HEK293/Human CEACAM5 Stable Cell Line
	SCCHO-ATP081	CHO/Human CEACAM5 Stable Cell Line
Claudin-1	CHEK-ATP124	HEK293/Human Claudin-1 Stable Cell Line
Claudin-18.2	CHEK-ATP033	HEK293/Human Claudin-18.2 Stable Cell Line
Claudin-6	CHEK-ATP138	HEK293/Human Claudin-6 Stable Cell Line
Claudin-9	CHEK-ATP139	HEK293/Human Claudin-9 Stable Cell Line
DLL3	CHEK-ATP090	HEK293/Human DLL3 Stable Cell Line
	SCCHO-ATP111	CHO/Human DLL3 Stable Cell Line
EGF R	CHEK-ATP148	HEK293/Human EGF R Stable Cell Line
ENPP3	CHEK-ATP122	HEK293/Human ENPP3 Stable Cell Line
EpCAM	CHEK-ATP175	HEK293/Human EpCAM Stable Cell Line
ErbB3	CHEK-ATP149	HEK293/Human ErbB3 Stable Cell Line
FAP	CHEK-ATP184	HEK293/Human FAP Stable Cell Line
FOLR1	CHEK-ATP091	HEK293/Human FOLR1 Stable Cell Line

Molecule	Cat. No.	Product Description
Glypican 3	CHEK-ATP092	HEK293/Human Glypican-3 (GPC3) Stable Cell Line
	CHEK-ATP177	HEK293/Cynomolgus Glypican-3 (GPC3) Stable Cell Line
	SCCHO-ATP112	CHO/Human Glypican-3 (GPC3) Stable Cell Line
	SCCHO-ATP179	CHO/Cynomolgus Glypican-3 (GPC3) Stable Cell Line
GPC3	CHEK-ATP212	HEK293/Human GPC3 ΔHS Stable Cell Line
GPRC5D	CCHO-STP078	CHO/Human GPRC5D Stable Cell Line
	CHEK-STP042	HEK293/Human GPRC5D Stable Cell Line
GUCY2C	CHEK-ATP182	HEK293/Human GUCY2C Stable Cell Line
Her2	CHEK-ATP150	HEK293/Human ErbB2 Stable Cell Line
HGF R	CHEK-ATP146	HEK293/Human c-MET Stable Cell Line
	SCCHO-ATP141	CHO/Human c-MET Stable Cell Line
Integrin alpha V beta 6	CHEK-ATP125	HEK293/Human Integrin alpha V beta 6 Stable Cell Line
LRRC15	CHEK-ATP123	HEK293/Human LRRC15 Stable Cell Line
LY6G6D	CHEK-ATP137	HEK293/Human LY6G6D Stable Cell Line
MCAM	CHEK-ATP195	HEK293/Human MCAM Stable Cell Line
Mesothelin	CHEK-ATP119	HEK293/Human Mesothelin Stable Cell Line
	SCCHO-ATP120	CHO/Human Mesothelin Stable Cell Line
NAPI-IIb	CHEK-ATP116	HEK293/Human NAPI-IIb Stable Cell Line
Nectin-4	CHEK-ATP035	HEK293/Human Nectin-4 Stable Cell Line
PSMA	CHEK-ATP185	HEK293/Human PSMA Stable Cell Line
PTK7	CHEK-ATP186	HEK293/Human PTK7 Stable Cell Line
ROR1	CHEK-ATP084	HEK293/Human ROR1 Stable Cell Line
	SCCHO-ATP083	CHO/Human ROR1 Stable Cell Line
SEZ6	CHEK-ATP183	HEK293/Human SEZ6 Stable Cell Line
Sortilin	CHEK-ATP155	HEK293/Human SORT1 Stable Cell Line
SSTR2	CHEK-ATP213	HEK293/Human SSTR2 Stable Cell Line
STEAP1	CHEK-ATP154	HEK293/Human STEAP1 Stable Cell Line
	SCCHO-ATP121	CHO/Human STEAP1 Stable Cell Line
Tissue Factor	CHEK-ATP240	HEK293/Human Tissue Factor Stable Cell Line
TPBG	CHEK-ATP176	HEK293/Human TPBG Stable Cell Line
Transferrin	CHEK-ATP115	HEK293/Human Transferrin Stable Cell Line
Transferrin R	CHEK-ATP089	HEK293/Human Transferrin R Stable Cell Line
TROP-2	CHEK-ATP036	HEK293/Human TROP-2 Stable Cell Line
uPAR	CHEK-ATP151	HEK293/Human uPAR Stable Cell Line
	SCCHO-ATP152	CHO/Human uPAR Stable Cell Line

## - Neuroscience

Molecule	Cat. No.	Product Description
Alpha-Synuclein	CHEK-ATP085	HEK293/Human Alpha-synuclein (GFP) Stable Cell Line
APP	CHEK-ATP081	HEK293/Human APP (GFP) Stable Cell Line
LDL R	CHEK-ATP158	HEK293/Human LDL R Stable Cell Line
LILRB3	CHEK-ATP159	HEK293/Human LILRB3 Stable Cell Line
NGFR	CHEK-ATP157	HEK293/Human NGFR Stable Cell Line
RAGE	CHEK-ATP156	HEK293/Human RAGE Stable Cell Line
Tau	CHEK-ATP087	HEK293/Human Tau-K18 (GFP) Stable Cell Line
TrkA	CHEK-ATP192	HEK293/Human TrkA Stable Cell Line
TrkB	CHEK-ATP082	HEK293/Human TrkB Stable Cell Line
TrkC	CHEK-ATP189	HEK293/Human TrkC Stable Cell Line

## - Diabetes & Obesity & NASH Drug Evaluation

Molecule	Cat. No.	Product Description
GCGR	CHEK-ATP209	HEK293/Human GCGR Stable Cell Line (High Expression)
	CHEK-ATP210	HEK293/Human GCGR Stable Cell Line (Medium Expression)
	CHEK-ATP211	HEK293/Human GCGR Stable Cell Line (Low Expression)
GIPR	CHEK-ATP206	HEK293/Human GIPR Stable Cell Line (High Expression)
	CHEK-ATP207	HEK293/Human GIPR Stable Cell Line (Medium Expression)
	CHEK-ATP208	HEK293/Human GIPR Stable Cell Line (Low Expression)
GLP-1R&GIPR	CHEK-ATP205	HEK293/Human GLP-1R&GIPR Stable Cell Line
GLP1R	CHEK-ATP160	HEK293/Human GLP-1R Stable Cell Line (High Expression)
	CHEK-ATP161	HEK293/Human GLP-1R Stable Cell Line (Medium Expression)
	CHEK-ATP162	HEK293/Human GLP-1R Stable Cell Line (Low Expression)
GPR75	CHEK-ATP174	HEK293/Human GPR75 Stable Cell Line

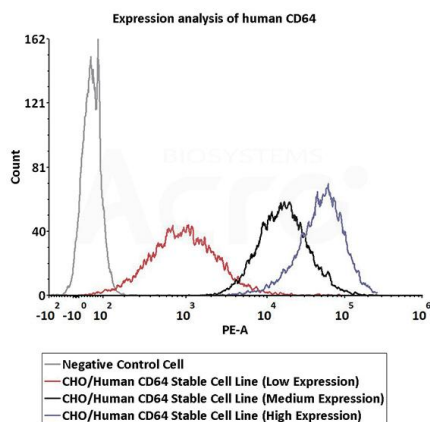
## - Autoimmunity Drug Evaluation

Molecule	Cat. No.	Product Description
CD40 Ligand	CHEK-ATP041	HEK293/Human CD40 Ligand / TNFSF5 Stable Cell Line
CD89	SCCHO-ATP225	CHO/Human CD89 Stable Cell Line
FcRn	SCCHO-ATP193	CHO/Mouse FCGRT-P2A-mGFP&B2M Cell Line
	SCMDC-ATP196	MDCK/Mouse FCGRT-P2A-mGFP&B2M Cell Line Development Service
FcRn (FCGRT & B2M)	CHEK-ATP079	HEK293/Human FcRn (FCGRT & B2M) Stable Cell Line
	CHEK-ATP132	HEK293/FcRn (FCGRT & B2M), GFP Tag Stable Cell Line

Molecule	Cat. No.	Product Description
IGF-1 R	CNIH-ATP102	NIH-3T3/Human IGF-1 R Stable Cell Line Development Service
MAdCAM-1	CCHO-ATP241	CHO/Human MAdCAM-1 Stable Cell Line
MRGPRX2	CHEK-ATP214	HEK293/Human MRGPRX2 Stable Cell Line
	SCCHO-ATP215	CHO/Human MRGPRX2 Stable Cell Line
OX40	CHEK-ATP053	HEK293/Human OX40 / TNFRSF4 / CD134 Stable Cell Line
OX40 Ligand	CHEK-ATP054	HEK293/Human OX40 Ligand / TNFSF4 Stable Cell Line
TL1A	CHEK-ATP142	HEK293/Human TL1A Stable Cell Line
	CHEK-ATP198	HEK293/Membrane-Bound human TL1A Stable Cell Line
	SCRAJ-STT204	Raji/Membrane-Bound Human TL1A Stable Cell Line
TSHR	CHEK-ATP086	HEK293/Human TSHR Stable Cell Line
	SCCHO-ATP085	CHO/Human TSHR Stable Cell Line

## Verification Data

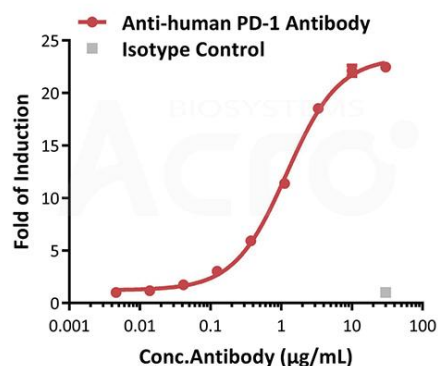
### - Receptor Assay



Expression analysis of human CD64 on CHO/Human CD64 Stable Cell Line by FACS. Cell surface staining using PE-labeled anti-human CD64 antibody was performed on CHO/Human CD64 Stable Cell Line with different expression levels: CHO/Human CD64 Stable Cell Line (Low Expression) (Cat. No. [SCCHO-ATP062L](#)); CHO/Human CD64 Stable Cell Line (Medium Expression) (Cat. No. [SCCHO-ATP062M](#)); CHO/Human CD64 Stable Cell Line (High Expression) (Cat. No. [SCCHO-ATP062H](#)).

### - Application

#### Anti-human PD-1 Antibody Screening (FOLD)



Blocking activity of anti-human PD-1 antibody (FOLD). This Raji/Human PD-L1 Stable Cell Line (Cat. No. [SCRAJ-STT075](#)) was incubated with serial dilutions of antibodies in the presence of reporter cells expressing human PD-1. The max induction fold was approximately 22.47.



Scan the QR to learn more about overexpression cell line

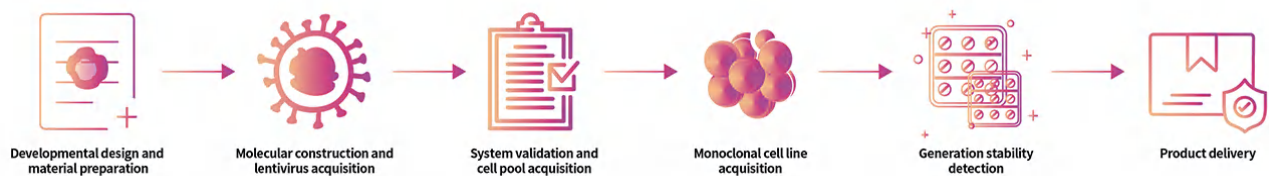
# Cell Line Customization Service

| Introduction | Service Workflow | Platform Advantages | Platform and Laboratory Introduction

## Introduction

Throughout the developmental process of new therapeutics, a key factor is in the activity determination of antibody therapeutic drugs. In order to do so, transgenic cell lines are widely used due to its simplicity, speed, accuracy, non-biological safety, and animal substitution. Activity determination could be performed in various ways, including binding studies; however, in vitro evaluation is a critical part in drug development and quality control. In order to fully meet our customer's needs across their therapeutic development process, **ACROBiosystems now offers customization services for reporter cell line, gene knockout cell line and overexpression cell line to help you develop that perfect cell line!**

## Service Workflow

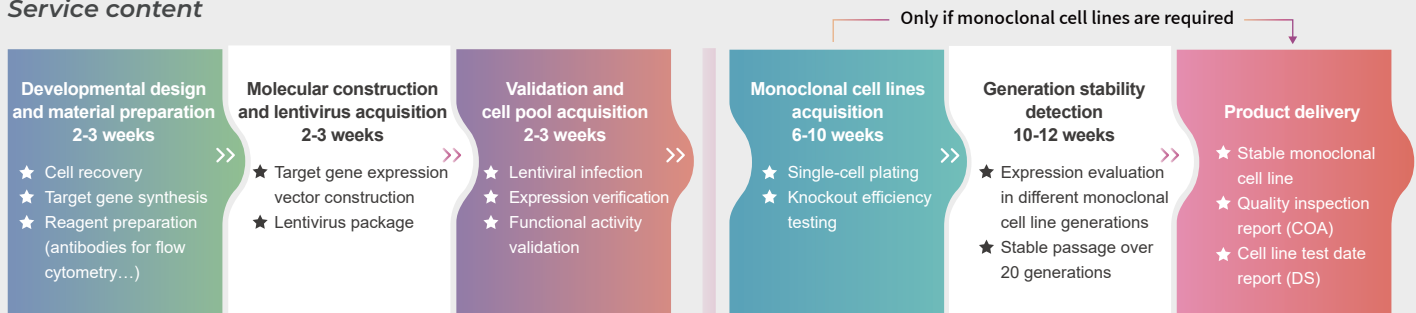


### - Reporter Cell Line Customization Service

#### Construction principle

Reporter gene cell lines are engineered based on drug mechanism of action, linking target signaling pathways to reporter gene expression. By monitoring reporter activity, these models enable specific detection of target pathway activation.

#### Service content

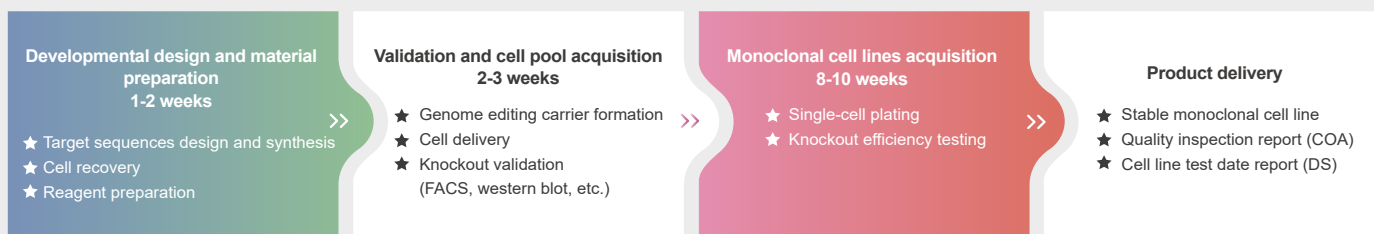


### - Gene Knockout Cell Line Customization Service

#### Construction principle

Gene knockout cell lines use gene editing to precisely delete specific genes, enabling the loss-of-function modeling of target genes.

#### Service content

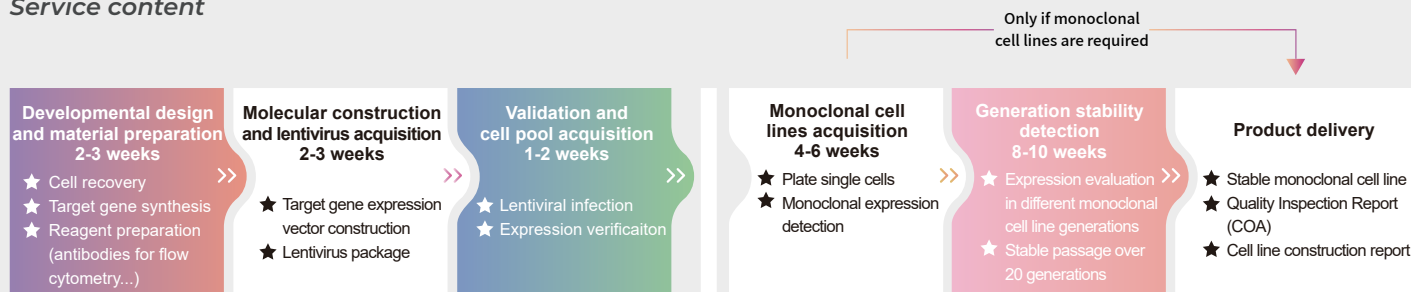


## - Overexpression Cell Line Customization Service

### Construction principle

Construction of target gene onto the expression vector is the first step in developing your custom cell line. We introduce this gene through lentiviral infection which integrates it into the chromosome for stable expression on the host cell surface membrane.

### Service content



## Platform Advantages

- ✓ **Mature cell line development platform:** Different overexpression and reporter gene cell line products are available.
- ✓ **High-quality deliverables:** Strict quality control for strong reaction signals, wide detection windows, and long-term passaging stability without loss of expression.
- ✓ **Worry-free service:** Free sample testing before purchase backed by a professional technical support team and after-sales policy guarantee.
- ✓ **Regulatory documentation support:** Quality inspection reports (CoA), cell line construction, cell traceability, and other documents required for CMC quality control release.
- ✓ **One-stop customization:** Only basic information required for development before delivery of cells & analytical reports. Regular reports and smooth communication is guaranteed throughout the service project.

## Platform and Laboratory Introduction



### Experienced R&D and technical team

With rich experience in the development of stable cell lines and the evaluation of the activity of macromolecular drugs, we can meet your cell line development needs with optimal solutions. ACROBiosystems has completed numerous one-stop services projects for many large-scale well-known pharmaceutical R&D companies and scientific research customers at home and abroad, and strives to provide a stable and convenient tool for new drug research and development.



Molecular construction platform



Lentiviral packaging platform



Cell line screening platform



Drug activity evaluation platform



Scan the QR to learn more about cell line customization service



Scan the QR to apply for cell line customization service

# Functional Cell Line Commercial License Support Service

| Introduction | Core Value | License Scope | Service Workflow

## Introduction

As an essential tool in biopharmaceutical research and development, functional cell lines offer stability, broad applicability, and rich biological characteristics, making them extensively used in target validation, mechanism exploration, high-throughput drug screening, analytical testing, quality control (QC) release, as well as pharmacodynamics and toxicology studies.

In the biopharmaceutical development process, obtaining commercial licensing for functional cell line products is a critical prerequisite to ensure the legal and compliant advancement of projects. This process not only safeguards intellectual property rights but also facilitates the smooth progression of research and development activities within the regulatory framework.

**ACROBiosystems has officially secured global commercial usage rights for HEK293, CHO, Jurkat, Raji cell lines, enabling it to provide comprehensive licensing support and services worldwide.** This strategic achievement significantly enhances ACROBiosystems' portfolio of functional cell line products and services, offering biopharmaceutical developers and CRO/CDMO partners robust regulatory and intellectual property assurance. By offering this critical support, ACROBiosystems empowers its partners across the entire drug development process—from early-stage research and regulatory submissions to successful commercialization — ensuring a seamless and compliant pathway for innovation and market entry.

## Core Value

ACROBiosystems' functional cell line license support service is designed to assist biopharmaceutical developers and CRO/CDMO partners in obtaining commercial licenses for cell line products in a legally compliant manner. From the outset of a project, this service helps customers mitigate intellectual property and compliance risks, ensuring the use of properly authorized cell lines. By preventing the utilization of unclear or unauthorized cell lines, it safeguards against potential disruptions to commercialization and technology transfer, which could otherwise result in significant financial and operational setbacks. Moreover, this service contributes to accelerating drug development timelines and reducing associated costs, enabling partners to focus on innovation and expediting the journey from research to market.

### ✔ Clear Cell Line Origin:

ACRO's cell line products are sourced from globally recognized and authoritative cell banks, ensuring clear and traceable origins. Comprehensive documentation is available to support global regulatory filings and project transfers, enabling customers to meet compliance requirements with confidence.

### ✔ Well-Defined Intellectual Property (IP) Rights:

ACRO's cell lines are formally licensed from original rights holders, granting ACRO the authority to modify, develop, and commercialize related products. The modified cell lines have clear IP ownership, and ACRO holds the rights to further authorize these cell lines. Customers using ACRO's cell lines for drug development, regulatory submissions, or project transfers can eliminate future IP-related risks, ensuring a secure and compliant pathway for their projects.

### ✔ Global Commercial Authorization Support:

ACRO's dedicated international IP and legal team provides end-to-end support to help customers secure global commercial usage rights for cell line products. This ensures smooth regulatory compliance worldwide, enabling customers to navigate complex legal landscapes and accelerate their drug development processes with peace of mind.

## License Scope

Cell Type	Description	Rights Officially Secured by ACRO
HEK 293	Derived from human embryonic kidney cells, this cell line exhibits strong transfection capability and efficiently expresses exogenous genes. It is commonly used for therapeutic antibody production, engineered antibody screening, and optimization	<ol style="list-style-type: none"> <li>1. Commercial usage rights for the cell line</li> <li>2. Rights to modify, derive, and develop the cell line, as well as global sales rights for cell line products</li> <li>3. Global support for commercial license and usage</li> </ol>
CHO	Derived from Chinese hamster ovary (CHO) cells, this cell line exhibits high-efficiency protein expression and is widely used for therapeutic protein and antibody production	
Jurkat	Derived from the peripheral blood of a human acute T-cell leukemia patient, this cell line is highly sensitive to TCR signaling and is commonly used in tumor immunotherapy research and antibody efficacy studies	
Raji	Derived from human Burkitt lymphoma cells, this cell line expresses B-cell surface antigens and is commonly used in drug research for cancer treatment	

## Service Workflow



Scan the QR to learn more about functional cell line commercial license support service

Scan the QR to apply for functional cell line commercial license support service



# FAQ

## 01

### Are ACRO's cell line products monoclonal or cell pools?

All of our cell line products are monoclonal cell lines.

## 02

### Can you provide vector information such as the vector map or the full sequence used for cell line generation?

According to our current company policy:

- **With a signed Non-Disclosure Agreement (NDA)**, we are authorized to share the vector map.
- **Without a signed NDA:** We may disclose the sequence of the overexpressed target gene. Additionally, we can provide lentiviral residual testing reports upon request.

The following confidential information is not disclosed:

1. The complete vector sequence and the original vector name.
2. Sequences of signal response elements related to signal transduction pathways.

## 03

### What are the shipping conditions for cell lines, and what should be noted upon receipt for storage and use?

Cell lines are shipped on dry ice. To ensure optimal cell viability, we recommend thawing and initiating culture immediately upon receipt. If immediate thawing and culturing are not possible, we advise transferring the cells to liquid nitrogen for long-term storage. Please ensure the transfer process is quick to avoid thawing, as this may impact the long-term stability and viability of the cells.

If immediate transfer to liquid nitrogen is not feasible, the cells can be temporarily stored in a -80°C freezer. However, we recommend that the storage period from the date of receipt should not exceed two weeks. Long-term storage on dry ice or in a -80°C freezer is not recommended.

When using the cells, please refer to the recommended thawing and culturing methods provided in the DS.

**Please Note:** If the cells are received unfrozen or not on dry ice, please contact our technical support team immediately at [techsupport@acrobiosystems.com](mailto:techsupport@acrobiosystems.com).

## 04

### Why did I receive two cryovials of cell lines after purchasing a cell line product?

We provide two cryovials of cell lines to ensure the smooth progress of your experiments. In the event of any issues with thawing, recovery, or culturing of the first vial, please contact our technical support team ([techsupport@acrobiosystems.com](mailto:techsupport@acrobiosystems.com)) for troubleshooting before thawing the second vial.

All ACRO cell lines undergo pre-shipment validation for recovery and culturing. Additionally, we recommend establishing a cell bank at the earliest possible passage stage to ensure long-term use.

## 05

### What should be noted when recovering cell lines upon receipt?

After thawing the cells, they should initially be cultured in a medium **without selection antibiotics** for 1-2 passages. If the cells exhibit good condition, you can switch to a medium with selection antibiotics for further passaging. For guidance on selecting appropriate antibiotics, please refer to **FAQ12**.

Additionally, we recommend adding **P/S (Penicillin-Streptomycin)** to the culture medium throughout the entire cell culture process to maintain aseptic conditions.

## 06

### What should be noted during cell passaging?

#### For Adherent Cells (e.g., HEK293):

**Confluence:** Avoid over-confluence during culture. If the confluence is too high (exceeding **100%**), it may significantly affect cell viability after passaging. Please refer to the passaging methods and precautions in the **DS** for specific instructions.

**Post-Passaging Issues:** If cells exhibit poor adherence after passaging due to over-confluence or other reasons, we recommend:

- Removing selection antibiotics from the culture medium.
- Passaging at a higher cell density (e.g.,  $1 \times 10^7$  cells per T75 flask).
- Resuming normal passaging only after cell viability has recovered.

#### For Suspension Cells (e.g., Jurkat and Raji):

**Cell Density:** Avoid excessively high cell density. If the density is too high (exceeding  $3 \times 10^6$  cells/mL), it may significantly affect cell viability after passaging. Please refer to the passaging methods and precautions in the **DS** for specific instructions.

**Post-Passaging Issues:** If cells exhibit poor viability after passaging due to high density or other reasons, we recommend:

- Removing selection antibiotics from the culture medium.
- Passaging at a lower density (e.g.,  $1 \times 10^5$ - $2 \times 10^5$  cells/mL).
- Resuming normal passaging only after cell viability has recovered.

Always monitor cell health and adjust protocols as needed to maintain optimal growth conditions.

## 07

### What type of culture plate is recommended for seeding adherent cells during initial functional experiments?

We recommend starting with a **transparent 96-well** plate for cell seeding (refer to the specific experimental protocol for details). This allows for easy observation of cell status and determination of whether the cell density is appropriate. Once the experimental conditions are optimized, you can transition to other suitable culture plates.

For recommended cell seeding densities, please refer to **FAQ9**.

For a list of commonly used culture plates and consumables, see the product experimental protocol.

## 08

### Is it necessary to add selection antibiotics to the culture medium when seeding cells for functional experiments?

No, it is not necessary to add selection antibiotics.

## 09

### What is the recommended cell seeding density for adherent cells in functional experiments?

For **96-well plates**, we recommend seeding cells such that they reach approximately **80% confluence** after overnight culture before conducting functional experiments. You can start by following the cell seeding density recommended in the **ACRO experimental protocol** or by testing a gradient of different cell densities to determine the optimal conditions for your experimental system.

## 10

### Can I directly use the protein or drug concentrations recommended by ACRO in functional experiments?

During the initial stages of functional experiments, you can start by testing the **protein or drug concentrations recommended by ACRO**. However, due to variations in reagents or experimental conditions, we recommend conducting preliminary optimization experiments to determine the **optimal concentration** best suited for your specific experimental system.

## 11

### Can I use culture media and serum from other manufacturers for cell culture?

We recommend **prioritizing the use of culture media and serum from the manufacturers specified in the DS**. However, you may also choose to use **comparable alternatives** or other suitable culture media and serum (e.g., Gibco) for testing and cultivation.

## 12

### Can I use selection antibiotics from other manufacturers?

For selection antibiotics, we **highly recommend using the brands specified in the DS**. The activity of antibiotics may vary between manufacturers, so if you choose to use a different brand, it is essential to **validate whether the concentration recommended in the ACRO culture protocol is suitable**.

Regardless of the brand used, we recommend maintaining a **backup culture without selection antibiotics** to avoid potential cell loss due to inappropriate antibiotic concentration.

## 13

### Can I use proteins from other manufacturers for functional activity experiments?

We **highly recommend using the protein reagents from the manufacturers specified in the experimental protocol**, as their activity has been validated by us. If you choose to use protein products from other manufacturers, we recommend conducting a **concentration optimization** based on the recommended concentrations in the protocol to identify the appropriate concentration for your experiments.

## 14

### What do you recommend for cell freezing medium?

For both **adherent and suspension cells**, we recommend using **90% FBS + 10% DMSO (V/V)** as the freezing medium. Alternatively, you may choose **commercial cell freezing media** or other suitable freezing media commonly used in your laboratory.

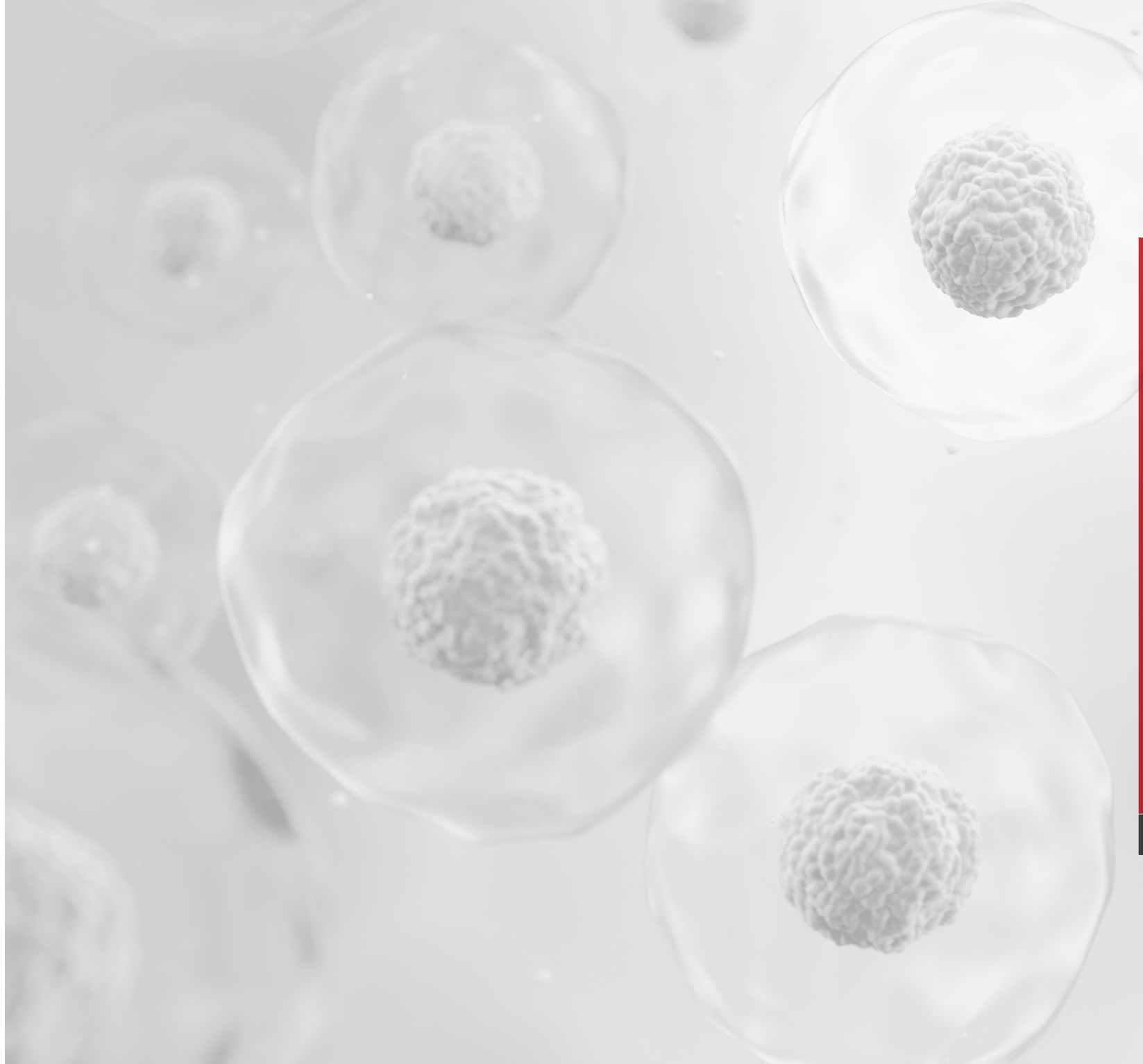
**Recommended freezing density:**  $5 \times 10^6$ -  $1 \times 10^7$  cells/mL.

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