

**DIMA BIOTECH**  
Recombinant mAbs and proteins

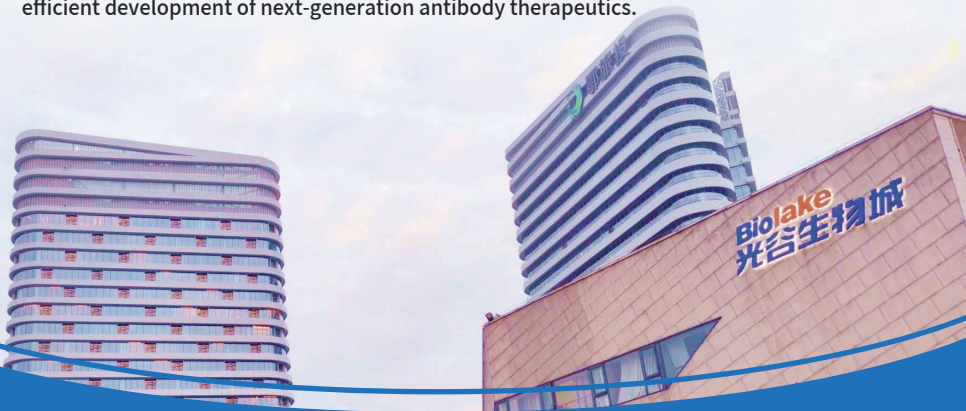
# DIMA BIOTECH Highlights

Innovations in Therapeutic Antibody Discovery  
and Functional Membrane Protein Development

# Position & Mission Statement

DIMA Biotechnology LLC (DIMA BIOTECH) is an innovation-driven biotech company focused on accelerating antibody discovery for pre-clinical research. By integrating proprietary platforms, such as Nanodisc-based membrane protein technology, single B cell recombinant mAb cloning, and mammalian cell display, with an off-the-shelf antibody approach, DIMA BIOTECH enables biopharms with rapid access to validated lead monoclonal antibodies (mAbs) and significantly shortens early-stage development timelines.

With a customer-centric model featuring zero upfront payment, DIMA BIOTECH provides a curated library of lead mAbs against highly druggable targets, allowing researchers to move quickly from target selection to functional validation. Supported by AI-assisted antibody engineering and downstream solutions such as functional assays and developability assessment, DIMA BIOTECH is committed to enabling faster and more efficient development of next-generation antibody therapeutics.



INTEGRITY



PRAGMATISM



INNOVATION



FOCUS

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# 1

## Development of Ready-to-Test Lead mAbs

# Ready-to-Test Lead mAbs for Therapeutic Targets

**5000+** Pre-validated IgG Sequences with Global Licensing Options

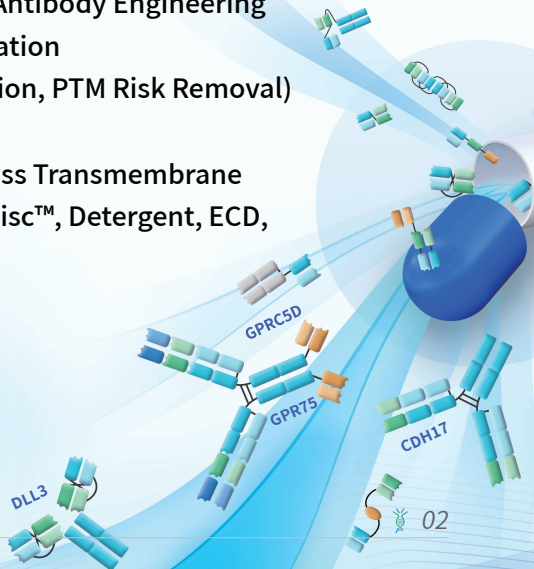
**500+** Druggable Targets

Zero Upfront

Zero Waiting

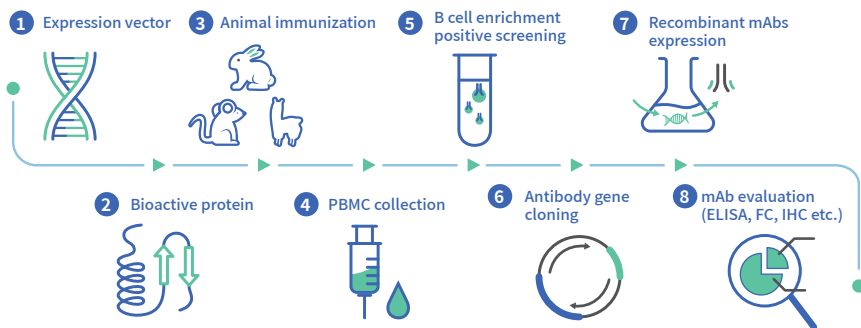
Zero Risk

- Immediate Testing (Pre-clinical Validation Data Package Available)
- Functional Evaluation Data on Different Modality Platforms (CAR-T, ADC, BsAb, etc.)
- Mammalian Cell Display Based Antibody Engineering Platform for lead mAbs Optimization (Humanization, Affinity Maturation, PTM Risk Removal)
- Complete Solutions for Multi-pass Transmembrane Proteins (Syndisc™, PeptiNanodisc™, Detergent, ECD, VLP, etc.)

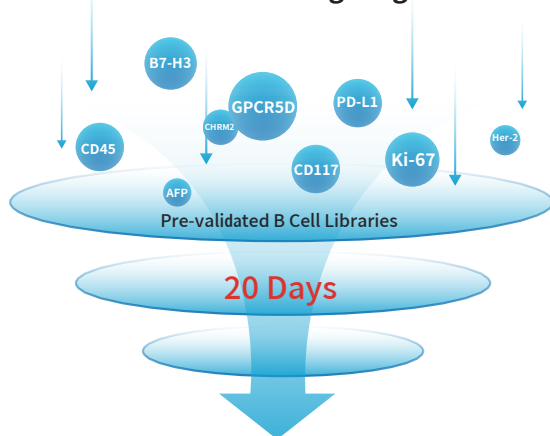


# Technology Platforms for Lead mAbs Discovery

## ■ Single B Cell Cloning Platform

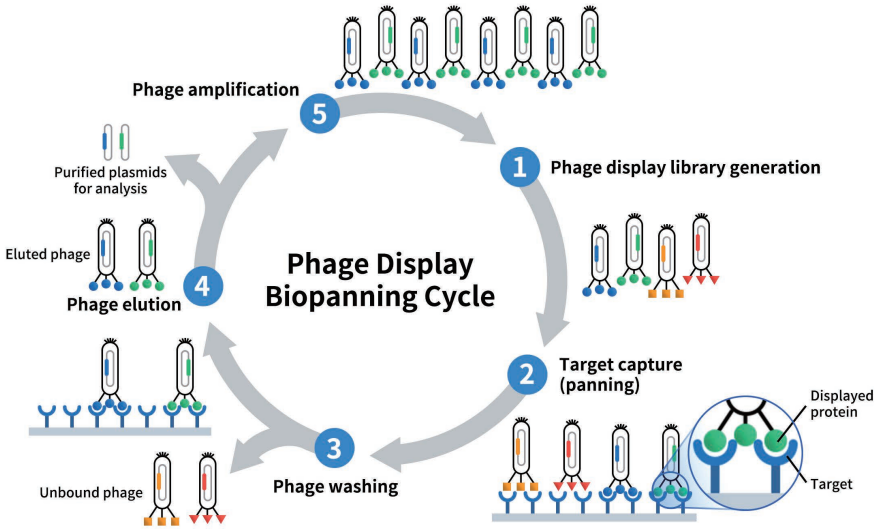


## Pre-validated B Cell Libraries for Drug Targets

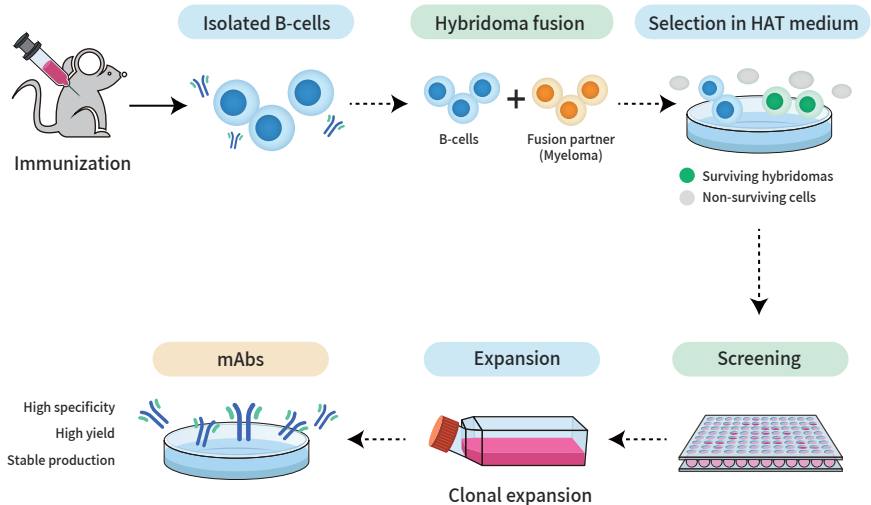


1. **High efficiency:** Obtain up to 10,000 positive IgG sequences from each immunized animal.
2. **High diversity:** Immunize at least 5 animals for each druggable target to ensure IgG sequence diversity.
3. **High speed:** Obtain validated IgG sequences in as little as 20 days.
4. **High quality:** Only use functionally validated proteins as immunogens.

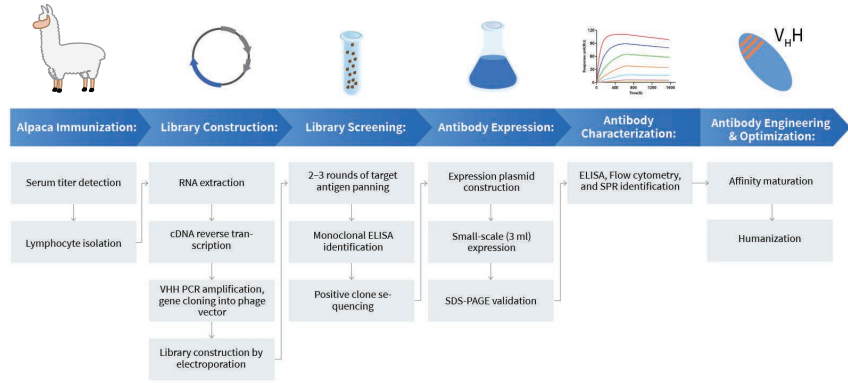
## ■ Phage Display Technology Platform



## ■ Hybridoma Fusion Technology Platform

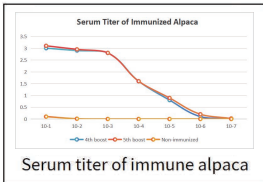


# DiNabody™ Platform for VHH Discovery



## Case Study

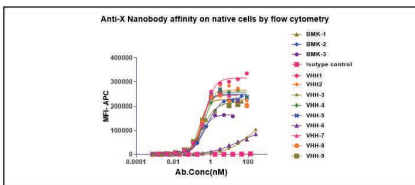
### 1. Animal Immunization



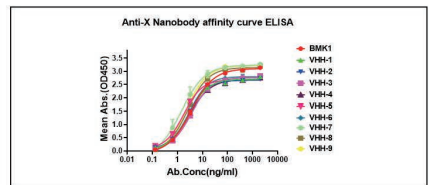
### 2. Epitope Analysis

Antigen Conc (µg/ml)	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Domain 6	Domain 7	Full length protein
Ab.Conc (2 µg/ml)	OD450							
VHH-1	2.8058	0.2722	0.4761	0.332	0.4499	0.3576	0.3477	2.3135
VHH-2	0.7147	0.4814	2.8554	0.6482	0.7381	0.5899	0.6537	2.4229
VHH-3	0.4559	0.1374	2.3179	0.1479	0.2626	0.1459	0.3054	2.3315
VHH-4	2.2263	0.3388	0.4845	0.4863	0.5365	0.4351	0.5614	2.1825
VHH-5	2.229	0.175	0.1829	0.1958	0.207	0.2276	0.2221	2.2669
VHH-6	2.4467	0.5772	0.7675	0.7972	0.8539	0.6305	0.7364	2.2813
BMK-1	2.3235	0.0903	0.0815	0.0708	0.0831	0.0781	0.0505	2.0482
Blank (Anti-VHH)	0.0619	0.0491	0.0522	0.0447	0.0542	0.0592	0.0554	0.2572
Blank(anti Human Fab)	0.0646	0.0546	0.0589	0.0516	0.0657	0.0572	0.0468	0.0527

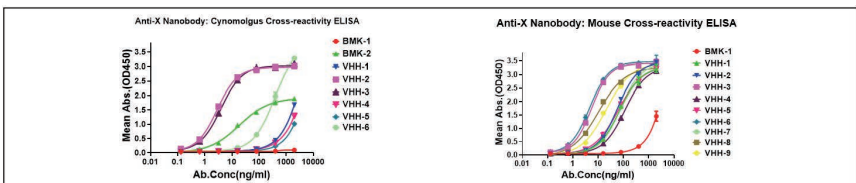
### 3. Flow Cyt



### 4. ELISA



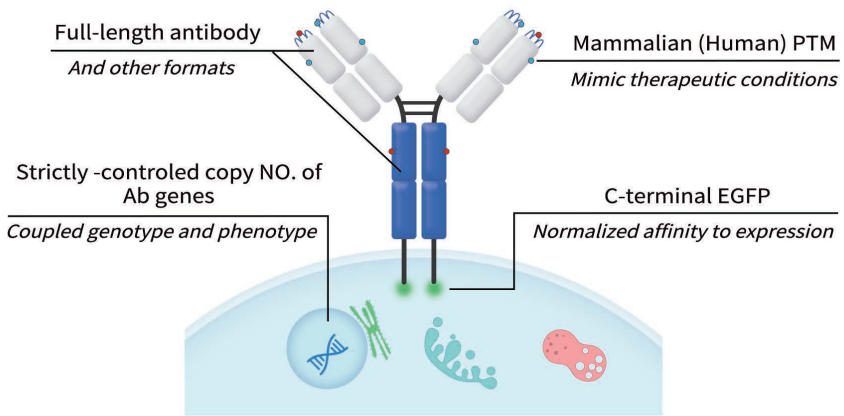
### 5. Cross-species ELISA



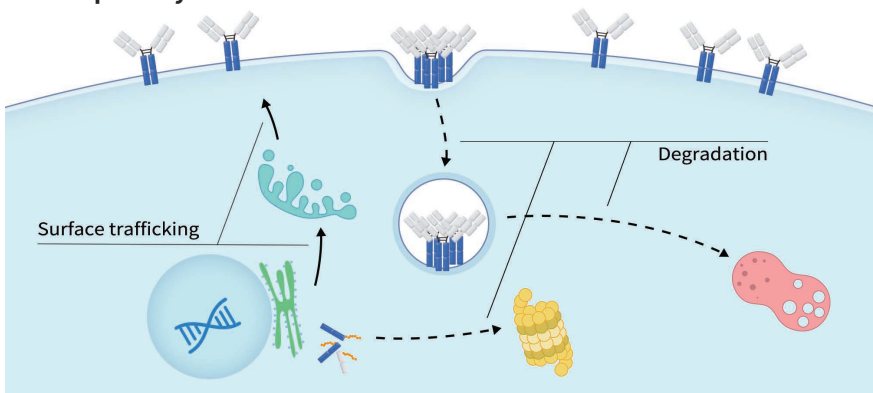
# Antibody Engineering for Therapeutic mAbs Development

## ■ DiLibrary™ Mammalian Cell Display Platform

### 1. The Design



### 2. A Natural Screening System to Fish out Molecules with Better Developability

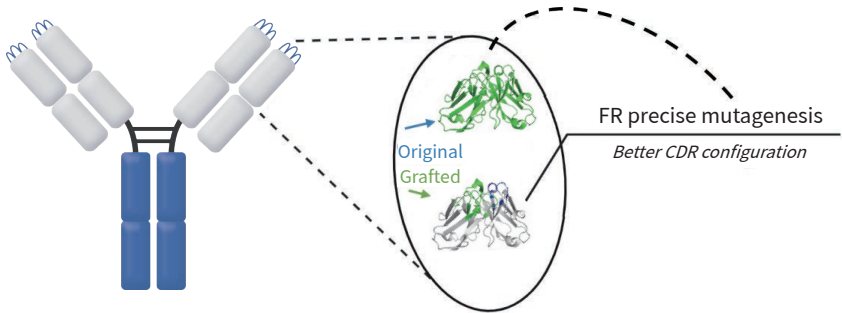


Structurally and chemically unstable molecules can be cleared out through mammalian cell internal quality control system.

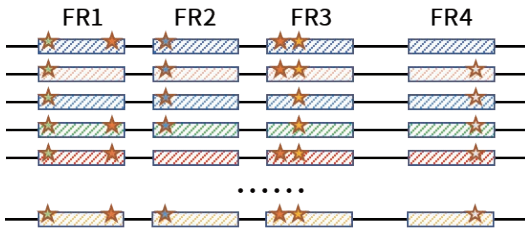
## ■ DiLibrary™ Antibody Humanization

High Humanness Score

Improved Developability



Human IgG FR Familial Mutation Library Constructed by Using Germline with Best Known Developability



### Case Study

Humanization of Anti-BCMA Rabbit mAbs

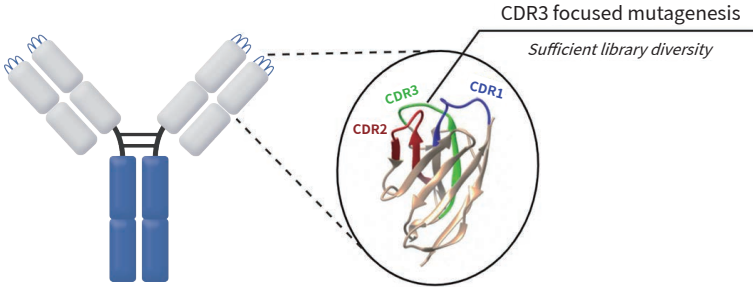
Analyte	Ka (1/Ms)	Kd (1/s)	KD (nM)	Rmax (RU)
Rabbit BCMA	4.3884E+4	1.1750E-5	0.267	65.3
Hu-BCMA1	3.1023E+4	4.3530E-6	0.14	105.2
Hu-BCMA2	2.8604E+4	4.5480E-6	0.159	78.9
Hu-BCMA3	6.4527E+4	1.0250E-6	0.015	81.3
Hu-BCMA4	3.3508E+4	1.9060E-6	0.056	92.1

Compared with the parental rabbit IgG, the humanized antibody (Hu-BCMA3) shows an 18-fold increase in binding affinity to its target.

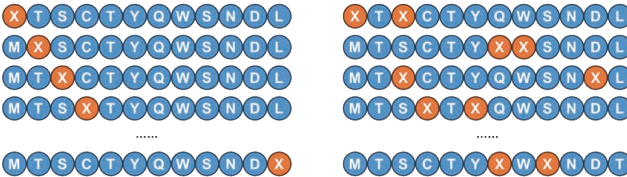
## DiLibrary™ Antibody Affinity Maturation

AI Guided Design

Functional Screening



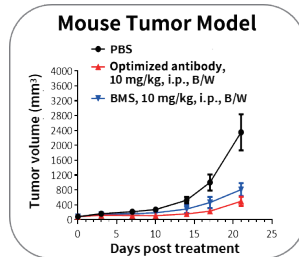
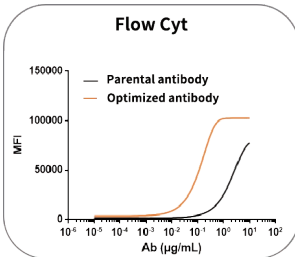
### AI Optimized Mutagenesis Library



### Case Study

#### Affinity Maturation for CCR8 Therapeutic Antibody

		Ka(M-1s-1)	Kd(s-1)	KD(M)	Rmax(RU)	Chi2(RU2)
Human	Parental antibody	2.82E+05	1.49E-02	5.26E-08	24.5	0.3697
	Optimized antibody	1.10E+05	7.22E-05	6.58E-10	73.0	0.9563
Cyno	Parental antibody	7.56E+04	4.35E-05	5.75E-10	24.3	0.739
	Optimized antibody	1.21E+06	2.27E-04	1.88E-10	55.2	0.7985



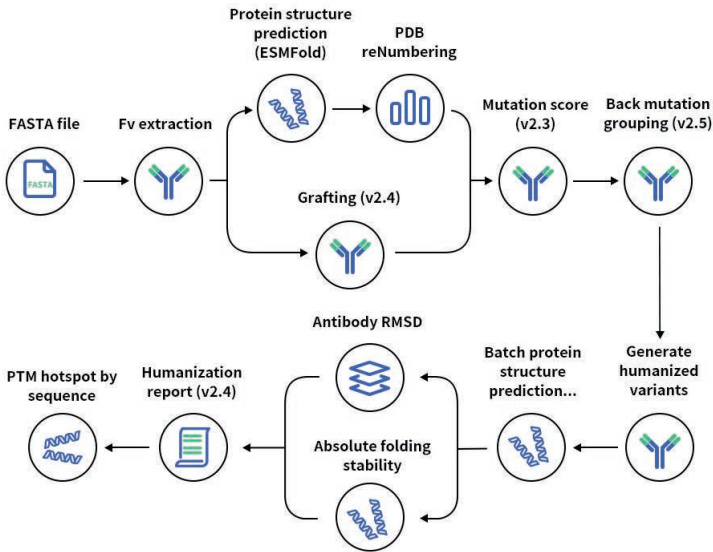
100-fold increase of affinity with only one amino acid mutation at each of LCDR3 and HCDR3.

## AI Based Antibody Humanization

Rapid Turnaround

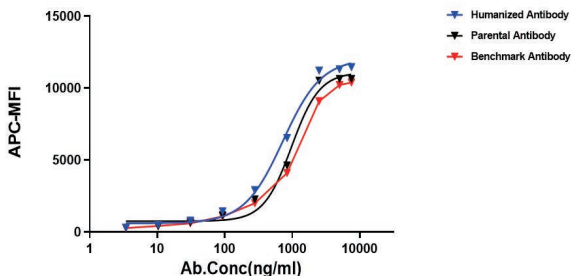
Cost-Effective

### 1. Computational Design of IgG Candidates



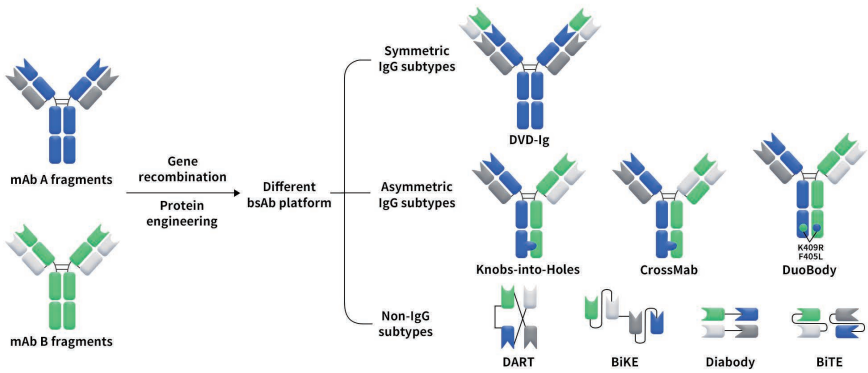
### 2. Antibody Affinity Ranking and Comparison with Parental mAbs

FACS Binding Curves of BCMA Antibodies on K562-BCMA Cells

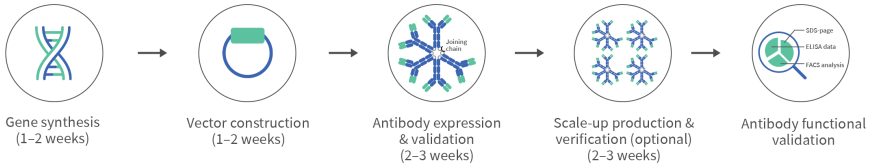


Flow cytometry analysis demonstrates that the binding affinity of the humanized antibody is comparable to that of the parental antibody, while both show superior binding compared to the benchmark.

## Bispecific Antibody (BsAb) Construction & Purification



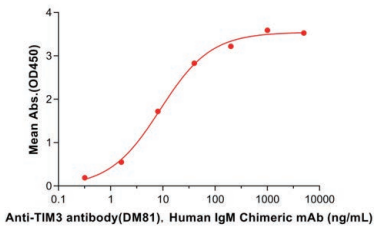
## IgG to IgM Conversion



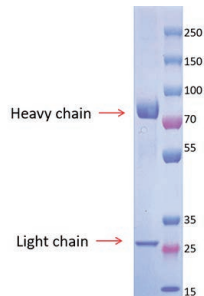
## Case Study

### Anti-TIM3 Antibody(DM81) IgM mAb

Anti-TIM3 antibody(DM81), Human IgM Chimeric mAb ELISA  
0.2 µg of Human TIM3, hFc tagged protein per well



Human TIM3 Protein, hFc Tag binds Anti-TIM3 antibody IgM mAb with EC50: 8.882ng/mL



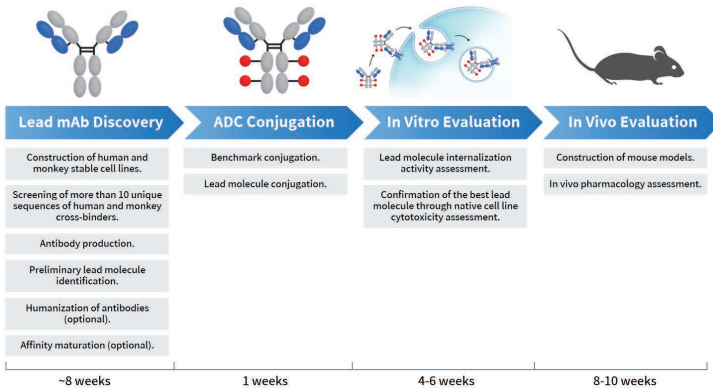
The purity of Anti-TIM3 antibody(DM81) IgM mAb determined by SDS-PAGE

# Assay Development for Therapeutic mAbs Screening

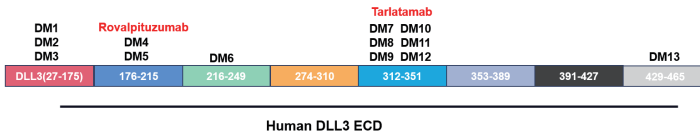
## ■ Functional Assays for ADC mAbs Screening

- Custom ADC Projects
- MMAE Payload Mediated Tumor Cell Killing Assay
- Anti-Payload and Anti-Linker mAbs
- Off-the-shelf Proteins & Lead mAbs
- Antibody Internalization Assays
- Cyno Protein Cross-Reactivity

## Custom ADC Projects



## Epitope Binning to Identify Key Functional Binding Domain



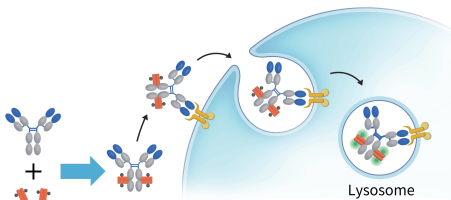
## Off-the-shelf Proteins & Lead mAbs for ADCs



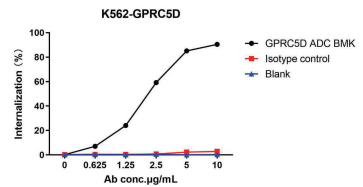
## ■ Antibody Internalization Assays

Cat.No.	Product name
AME100001	DiTag™ pH sensitive IgG labeling reagent
AME100002	DiTag™ pH sensitive IgG labeling reagent plus
AME100003	DiTag™ MMAE IgG labeling reagent
AME100005	DiTag™ Eribulin IgG labeling reagent

### pH-Sensitive IgG Labeling Reagents

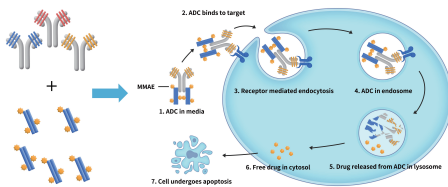


The mechanism of pH-Sensitive IgG Labeling Reagents

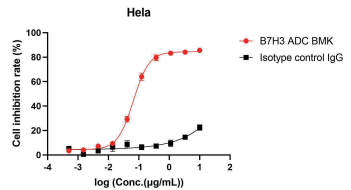


The fluorescent signal is anti-GPRC5D ADC BMK antibody dependent.

### Payload Conjugated IgG Labeling Reagents



The mechanism of Payload Conjugated IgG Labeling Reagents



Cell inhibition detected by CCK8 method. B7H3 BMK is labeled with DiTag™ MMAE IgG labeling reagent (Cat. No. AME100003)

### Key Features

1

Visualize & quantify antibody internalization efficiency

2

Simulate ADC mechanism to assess drug release & killing efficacy

3

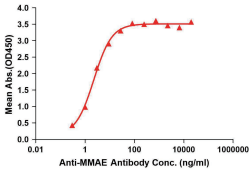
Broad applications: antibody screening, ADC validation, pharmacodynamic studies

## ■ Anti-Payload and Anti-Linker mAbs

Target	Cat.No.	Product name
MMAE	DME101003	Anti-MMAE antibody(8B4); Rabbit mAb
MMAE	DME101004	Anti-MMAE antibody(8C4); Rabbit mAb
MMAE	DME101005	Anti-MMAE antibody(9C4); Rabbit mAb
MMAE	DME101006	Anti-MMAE antibody(11B2); Rabbit mAb
MMAE	DME101007	Anti-MMAE antibody(11C8); Rabbit mAb
SN38	DME101020	Anti-SN38 antibody(1G1); Rabbit mAb
Dxd	DME101024	Anti-Dxd antibody(1A1); Rabbit mAb
Dxd	DME101025	Anti-Dxd antibody(1A5); Rabbit mAb
Dxd	DME101026	Anti-Dxd antibody(1A12); Rabbit mAb
Dxd	DME101027	Anti-Dxd antibody(1E6); Rabbit mAb
Eribulin	DME101047	Anti-Eribulin antibody(2E4); Rabbit mAb
Eribulin	DME101048	Anti-Eribulin antibody(3E2); Rabbit mAb
Eribulin	DME101049	Anti-Eribulin antibody(3G1); Rabbit mAb
Eribulin	DME101050	Anti-Eribulin antibody(3G5); Rabbit mAb
DM1	DME101062	Anti-DM1 antibody(14E3); Rabbit mAb
CL2A	DME101021	Anti-CL2A(ADC linker) antibody(1H6); Rabbit mAb
CL2A	DME101022	Anti-CL2A(ADC linker) antibody(1G9); Rabbit mAb
CL2A	DME101023	Anti-CL2A(ADC linker) antibody(1H2); Rabbit mAb

### MMAE

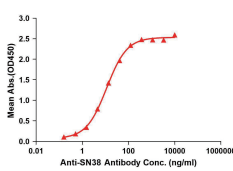
ELISA assay to evaluate Anti-MMAE antibody  
0.2µg Human IgG-MMAE per well



EC50 of anti-MMAE mAb binding to IgG-MMAE: 2.274 ng/mL.

### SN38

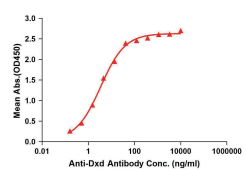
ELISA assay to evaluate Anti-SN38 Antibody  
0.2µg Human IgG-SN38 per well



EC50 of anti-SN38 mAb binding to IgG-SN38: 11.39 ng/mL.

### Dxd

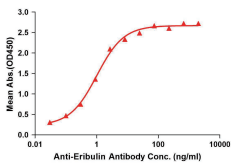
ELISA assay to evaluate Anti-Dxd Antibody  
0.2µg Human IgG-Dxd per well



EC50 of anti-Dxd mAb binding to IgG-Dxd: 3.447 ng/mL.

### Eribulin

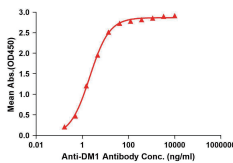
ELISA assay to evaluate Eribulin-Antibody  
0.2µg Human IgG-Eribulin per well



EC50 of anti-Eribulin mAb binding to IgG-Eribulin: 1.012 ng/mL.

### DM1

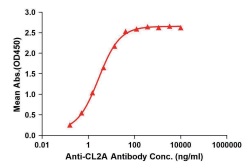
ELISA assay to evaluate Anti-DM1 Antibody  
0.2µg BSA-DM1 per well



EC50 of anti-DM1 mAb binding to BSA-DM1: 2.110 ng/mL.

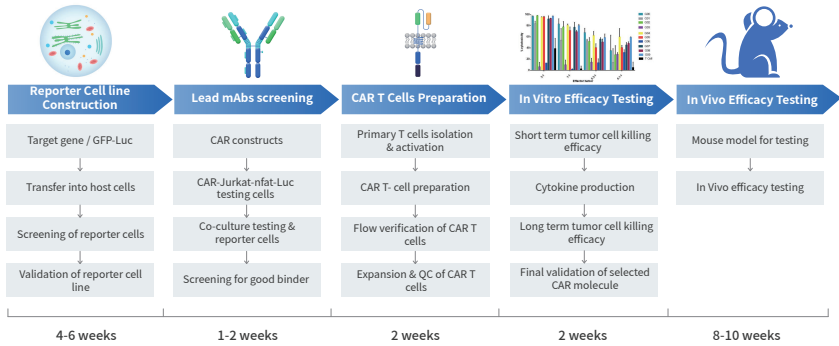
### CL2A (ADC linker)

ELISA assay to evaluate Anti-CL2A Antibody  
0.2µg Human IgG-CL2A per well



EC50 of anti-CL2A mAb binding to IgG-CL2A: 2.801 ng/mL.

# Functional Assays for CAR T-cell Therapy Screening

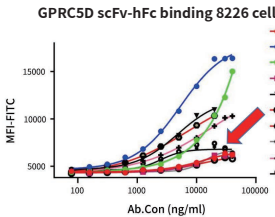


## Hot Pre-validated CARs

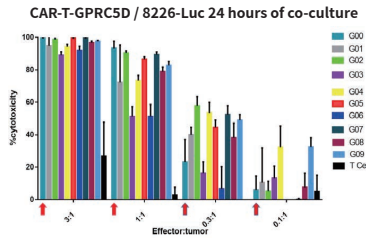


## Case Study

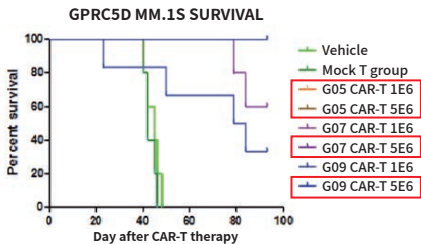
### Anti-GPRC5D Functional CAR Screening



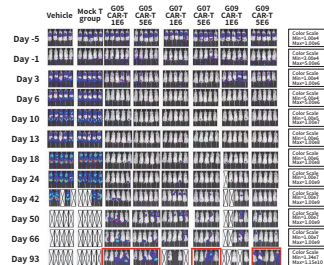
The samples marked with red arrows correspond to the reference CAR (BMK).



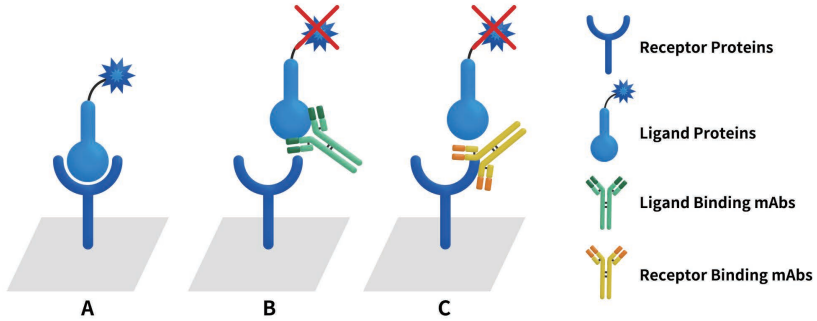
### In vivo efficacy evaluation of the NSG mouse multiple myeloma model. Animal survival data summary on selected CAR constructs



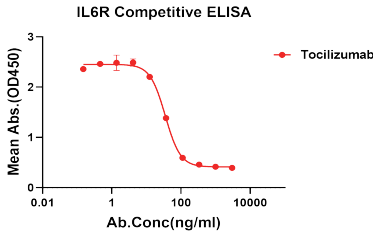
93 days post CAR T-cells infusion, red box-labelled groups of mice are still alive.



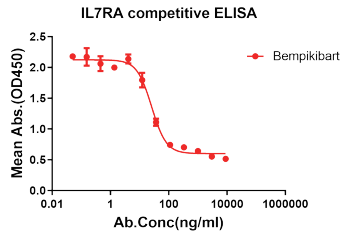
## Functional Assays for Receptor-Ligand Blocking mAb Screening



### Case Study



Competitive ELISA demonstrating inhibition of IL-6 binding to IL-6R by a tocilizumab biosimilar ( $IC_{50} = 35.11$  ng/mL).



Competitive ELISA demonstrating dose-dependent inhibition of IL-7/IL-7RA interaction by a bempikibart biosimilar ( $IC_{50} = 25.96$  ng/mL).

## Blocking Assays Available for Functional mAb Screening

Target	Ligand/ Receptor	Rererence Antibody(Cat.No.)
41BBL	41BB	SC113.153
ACVR2A	Activin A	bimagrumab (BME100228)
ACVR2B	Activin A	bimagrumab (BME100228)
CD47	SIRP $\alpha$	magrolimab (BME100001)
CSF1R	M-CSF	cabiralizumab (BME100055)
EGFR	EGF	Cetuximab (BME100034)
HER3	NRG1	seribantumab (BME100244)
		patritumab (BME100057)
IL21	IL21R	avizakimab (BME100103)
IL21R	IL21	ATR 107 (BME100292)
IL31RA	IL-31	nemolizumab (BME100231)
IL4RA	IL4	dupilumab (BME100052)

Target	Ligand/ Receptor	Rererence Antibody(Cat.No.)
IL6R	IL6	tocilizumab (BME100041)
IL7RA	IL7	bempikibart (BME100428)
IL7RA	IL7	bempikibart (BME100428)
MET	HGF	emibetuzumab (BME100245)
OX40	OX40L	KH 72577-3
PD1	PDL1	pembrolizumab (BME100006)
PDL1	PD1	atezolizumab (BME100009)
TIGIT	CD155	etigilimab (BME100024)
Canine PD1	Canine PDL1	INTERVET 4F12 (BME100202)
Canine IL31	Canine IL31RA	lokivetmab (BME100268)
Feline IL31	Feline IL31RA	dovanvetmab (BME100269)

# Other Reagents for mAbs Discovery

## ■ Benchmark Reference Antibodies

Wide Coverage of Hot Drug Targets & Popular Biosimilars

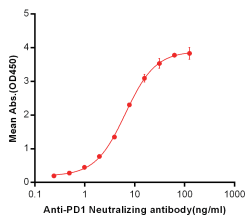
Validated with In-House Recombinant Proteins & Cells

PE & Biotin Labeling for Versatile Applications

### Case Study

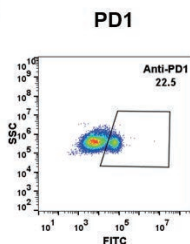
#### Anti-PD1 (pembrolizumab biosimilar) mAb ELISA

0.2 µg of Human PD1, mFc-His Tagged protein per well

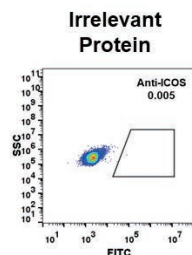


Anti-PD-1 pembrolizumab biosimilar (Cat.No.BME100006) binds pre-coated PD1 ELISA plate (0.24-6.49 ng/ml).

A

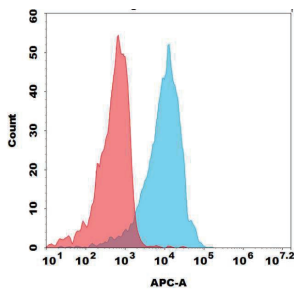


B



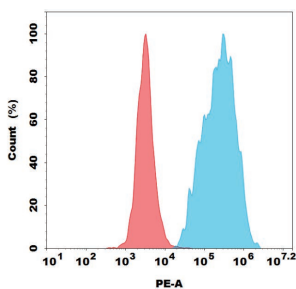
HEK293 cells expressing PD1 (A) or irrelevant protein (B) were stained with Anti-PD-1 pembrolizumab biosimilar (Cat.No.BME100006) 1µg/ml and Alexa 488-secondary.

#### Biotinylated



Biotinylated Anti-STEAP1 Vandortuzumab biosimilar (Cat.No.BME100188B) mAb on SNU-5 cell line (Blue histogram) or 293T (Red histogram).

#### PE-Conjugated



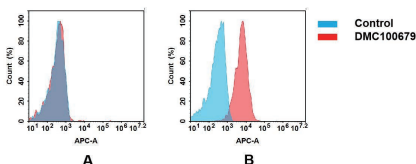
PE-conjugated Anti-CLDN18.2 zolbetuximab biosimilar (Cat.No.BME100075P) on AGS-CLDN18.2 stable expression cell line (Blue histogram) or 293T (Red histogram).

## Flow Cytometry mAbs & Fluorescent-Conjugated Antibodies

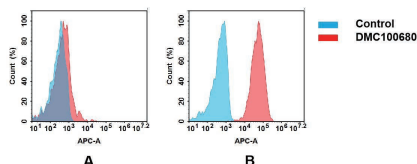
- No permeabilization required
- Live-cell staining
- 70+ GPCR-targeting antibodies

- High specificity and sensitivity
- Supports multiple labeling options

### Case Study

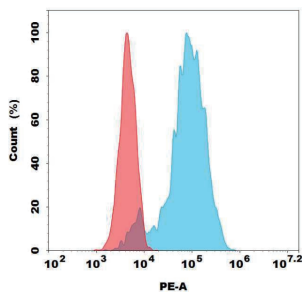


Flow cytometry analysis of anti-human CXCR5 mAb (Cat. No. DMC100679).  
 (A) No binding to CXCR5-negative HeLa cells.  
 (B) Clear peak shift in CXCR5-expressing Raji cells, indicating strong binding.

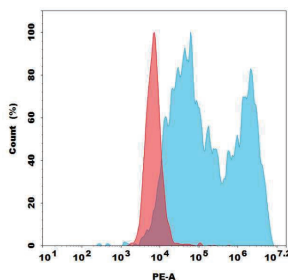


Flow cytometry analysis of anti-human CXCR4 mAb (Cat. No. DMC100680).  
 (A) No binding to CXCR4-negative HepG2 cells.  
 (B) Clear peak shift in CXCR4-expressing HeLa cells, indicating strong binding.

### PE-Conjugated Antibody



Flow cytometry analysis with 0.5µl/test PE Anti-GPR75 antibody(DMC368) on CHO-GPR75 stable expression cell line (Blue histogram) or CHO (Red histogram).



Flow cytometry analysis with 1 µl/test PE-conjugated Anti-CXCR5 antibody(DMC679) on HEK293 cells transfected with Human CXCR5 protein (Blue histogram) or HEK293 transfected with irrelevant protein (Red histogram).

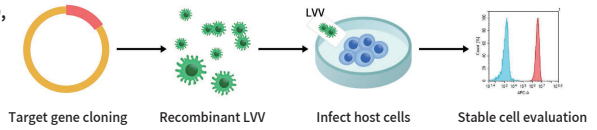
## Cell Lines

### Drug Target Stable Cell Lines

### Functional Reporter Cell Lines

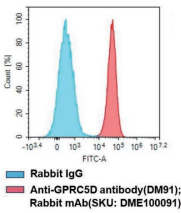
Wide coverage of host cells, including K562, 293T, CHO, Jurkat and more

Proven applications  
Antibody validation  
Functional assay screening

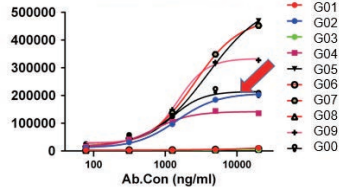


## Case Study

Hu\_GPRC5D K562 Cell Line

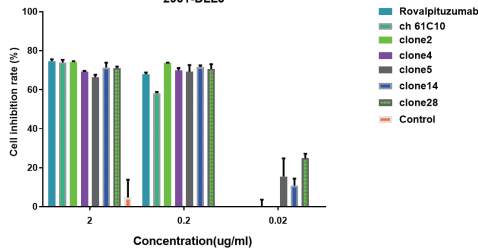


Anti GPRC5D scFv hFc



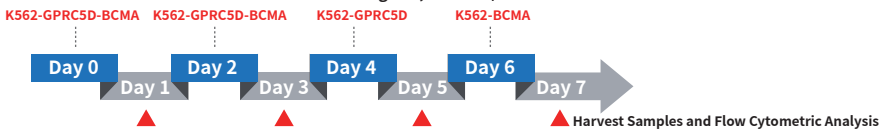
Hu\_GPRC5D K562 Cell Line (Cat.No.CEL100001)

293T-DLL3



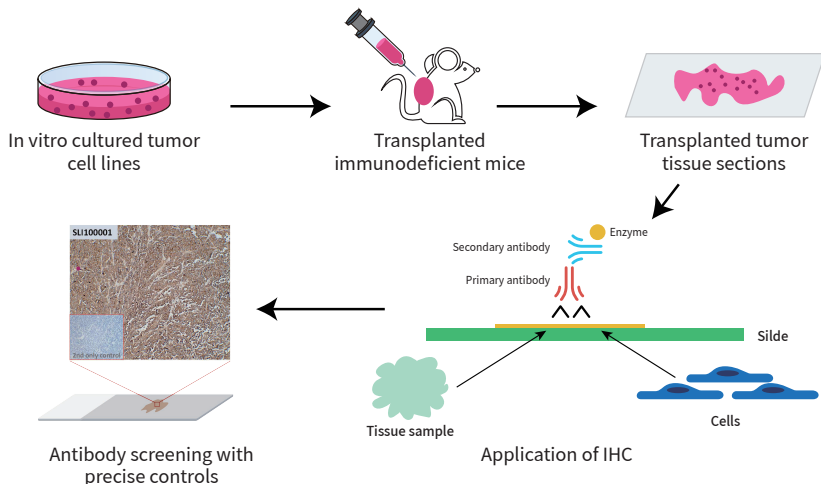
Cytotoxicity screening of ADC candidate antibodies using the 293T-DLL3 stable cell line (Cat. No.CEL100039) helps identify antibodies with effective internalization.

### Tumor Rechallenge 20,000 cells/well



Using K562 stable cell lines expressing GPRC5D/BCMA as surrogate tumor cells, co-cultured with CAR-T cells. In this 7-day assay, CAR-T cells undergo four rounds of tumor challenge to assess the cytotoxicity of T cells against these "target cells," thereby evaluating the specificity of T cell-mediated killing and the potential off-target risks.

## CDX Tissue Sections



- **Efficient and reliable xenograft models:** Covering various human tumor cell lines for model diversity and broad application.
- **Precise tissue sections:** High-quality slicing ensures tissue structure integrity and accuracy.
- **Comprehensive IHC controls:** Provide standardized immunohistochemistry control data to optimize antibody screening and validation.



IHC Validation



Long-term Stability



Derived from Tumor Models



In Stock Supply



Customizable Services

## Partial Product List

Target	Cat.No.	Product name
BCMA BTN3A1 CD138 CD147 CD30 CD33 CD38 CD47 CD63 CD99 CS1 GITR GPC1 GPRC5D CAM-1 MUC1 PDL-1 SELPLG TFRC TIM3	SLI100001	M-NSG RPMI-8226 DiSliceX™ SlideSet
BTN3A2 CCR1 CD138 CD147 CD164 CD38 CXCR3 GPRC5D KI67 LGALS1 SELPLG	SLI100002	Balb/C nu MM.1S DiSliceX™ SlideSet
AXL CD63 EPCAM LGALS1	SLI100003	Balb/C nu PC3 DiSliceX™ SlideSet
ADAM9 AFP ALB ANGPTL3 B7H3 CD112 CD24 CDH6 CLDN6 CLU CXADR GPC3 HER3 MSLN PRLR SCF	SLI100004	Balb/C nu HuH7 DiSliceX™ SlideSet

For more in-stock tissue sections or custom services, please visit the DIMA website at <https://www.dima-bio.com/cdx-tissue-sections-for-ihc-screening> or contact [info@dimabio.com](mailto:info@dimabio.com) for more details.

# 2

## Proteins for Druggable Targets

# ECD Proteins (Single-Pass Membrane Proteins)

## Why Choose DIMA BIOTECH

✓ **Mammalian Cell Expression**  
Native folding & authentic PTMs

✓ **Used as Internal Immunogens for  
Therapeutic mAbs Generation**  
Covering 1,000+ drug targets

✓ **Different Animal Model Species**  
For mAbs cross-reactive evaluation

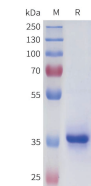
✓ **Validated in Therapeutic Lead  
mAb Functional Screening**  
SDS-PAGE | ELISA | Flow Cyt | SPR

## Applications

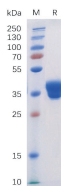
- Used and validated as good immunogens for therapeutic antibody generation
- Used in functional assays for therapeutic mAb screening
- Antibody affinity comparison and ranking
- Epitope binning and mechanism-of-action studies
- ELISA / SPR / BLI assay development

## Case Study

### SDS-PAGE

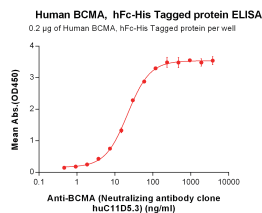


Human 41-BB protein  
(Cat.No.PME101695)



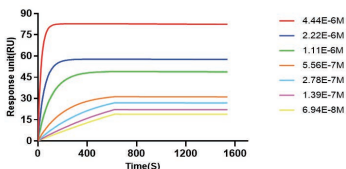
Human Fc Control Protein  
(Cat.No.PME100499)

### ELISA

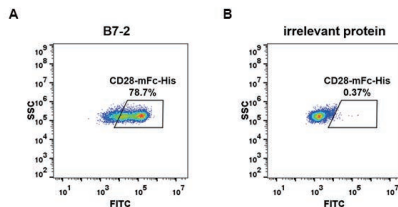


### SPR

SPR assay with human MUC1 ECD and anti-MUC1 biosimilar monoclonal antibody



### Flow Cyt



## Featured ECD Products (In Stock)

Target	Cat.No.	Product name
ACE2	PME100073	Human ACE2 Protein, hFc Tag
	PME100490	Human ACE2 Protein, His Tag
ANPEP	PME100810	Human ANPEP Protein, His Tag
BAFF-R	PME100044	Human BAFF-R Protein, mFc Tag
BILF1	PME101892	EBVB9 BILF1 Protein, hFc Tag
CCR8	PME101091	Human CCR8 Protein, hFc Tag
	PME-M100034	Mouse CCR8 Protein, hFc Tag
	PME-C100006	Cynomolgus CCR8 Protein, hFc Tag
CD20	PME100046	Human CD20 Protein, hFc Tag
CD46	PME100102	Human CD46 Protein, His Tag
CD74	PME100642	Human CD74 (73-296) Protein, hFc Tag
CD8A	PME100819	Human CD8A Acidic tail Protein, hFc Tag
CLEC4C	PME100756	Human CLEC4C Protein, hFc Tag
CXCR2	PME100937	Human CXCR2 Protein, hFc Tag
DLL3	PME100607	Human DLL3 Protein, hFc Tag
	PME100060	Human DLL3 Protein, His Tag
	PME101578	Human DLL3(27-175) Protein, N-MBP Tag and C-10×His tag
	PME-M100123	Mouse DLL3(309-350) Protein, hFc Tag
GPR75	PME100704	Human GPR75 Protein, hFc Tag
	PME101277	Human GPR75 Protein, mFc Tag
	PME-C100091	Cynomolgus GPR75 Protein, hFc Tag
HE4	PME101482	Human HE4 Protein, hFc Tag
IL18	PME101055	Human IL18 Protein, hFc Tag
IL31	PME100739	Human IL31 Protein, hFc Tag
IL31RA	PME-F100002	Feline IL31RA Protein, mFc Tag
	PME-D100010	Canine IL31RA Protein, mFc Tag
KLK3	PME100969	Human KLK3 Protein, hFc Tag
LPAR3	PME101857	Human LPAR3 Protein, hFc Tag
MDR-1	PME100601	Human MDR-1 (72-113) Protein, hFc Tag
MMP9	PME100754	Human MMP9(20-707) Protein, His Tag
RNASE4	PME100678	Human RNASE4 Protein, His Tag
RSPO1	PME100780	Human RSPO1(21-146) Protein, hFc Tag
SELP	PME100087	Human SELP Protein, hFc Tag
sortase A	PME101731	Staphylococcus aureus sortase A 5M Protein, His Tag
STAB1	PME100718	Human STAB1 Protein, hFc Tag
	PME100719	Human STAB1 Protein, His Tag

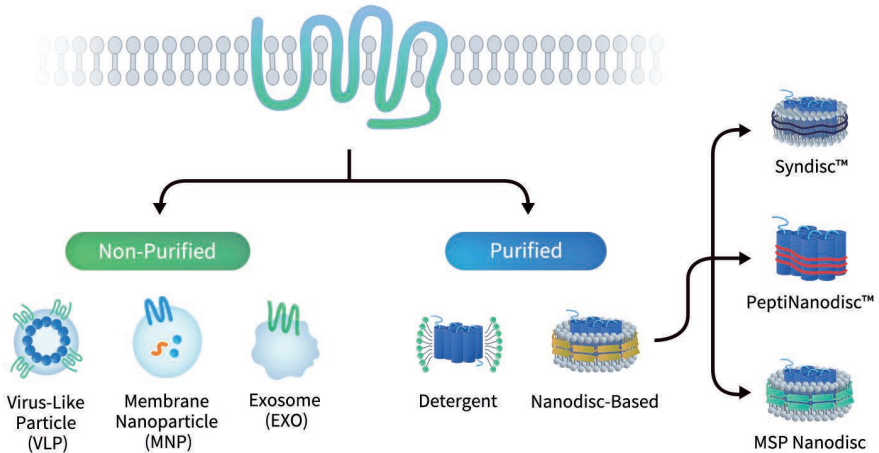
For more ECD protein options, please visit our website: <https://www.dimabio.com/recombinant-ecd-proteins>

# Solutions for the Full-length Multi-pass Transmembrane Proteins

Seven Production Platforms

Targets for GPCR, Ion Channel, etc.

Activity Validated Functional Proteins



## Explore Our Key Platforms in Action



Watch how Nanodisc drives antibody generation



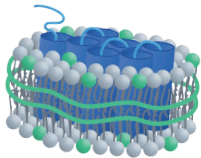
Discover Syndisc™ applications for challenging targets



See PeptiNanodisc™ optimized for cell-based assays

# Nanodisc for Full-length Multi-pass Transmembrane Proteins

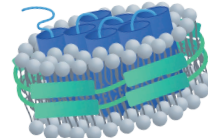
DIMA BIOTECH's unique Nanodisc platforms, including **Syndisc™** and **PeptiNanodisc™**, enable the stabilization of full-length, multi-pass membrane proteins in a native-like, detergent-free environment. Expressed in HEK293 cells to preserve proper structure and post-translational modifications, these systems support high-quality, biologically active proteins.



**Syndisc™**  
(Polymer based)



**PeptiNanodisc™**  
(Suitable for cell analysis)

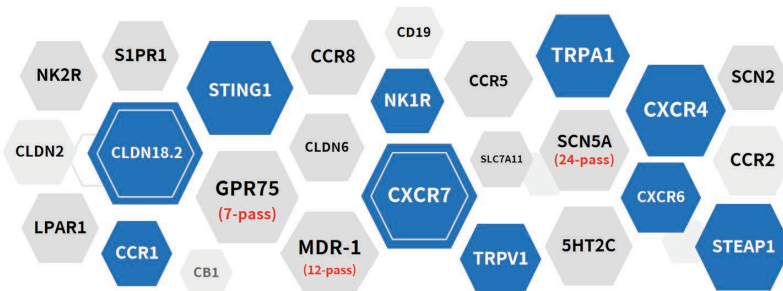


**MSP Nanodisc**  
(Custom production)

## Applications

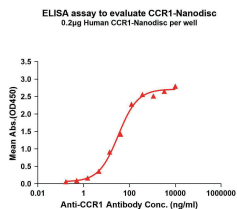
- **Molecular interaction studies:** ELISA, SPR, BLI
- **Therapeutic screening:** Phage display and small-molecule screening
- **Structural studies:** Cryo-EM
- **Cell-based functional assays:** PeptiNanodisc™
- **Effective antigen:** Syndisc™ for generating functional antibodies against challenging membrane targets (e.g., GPCRs)

## 700+ Nanodisc Proteins, with 300+ In Stock



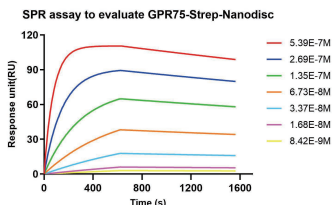
# Syndisc™ (Synthetic Polymer Nanodisc)

## ELISA



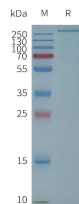
Human CCR1-nanodisc binding to anti-CCR1 mAb (Cat. No. DMC100465).  
7-pass GPCR, Cat. No. FLP100094.

## SPR



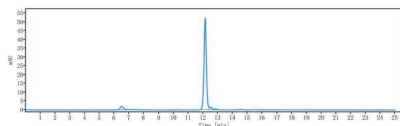
Human GPR75-Nanodisc binding to anti-GPR75 antibody (Cat. No. DMC100368). 7-pass GPCR, Cat. No. FLP120031.

## SDS-PAGE



Human SCN5A-Nanodisc, Flag Tag on SDS-PAGE.  
24-pass Na<sup>+</sup> ion channel, cat. No.FLP100726

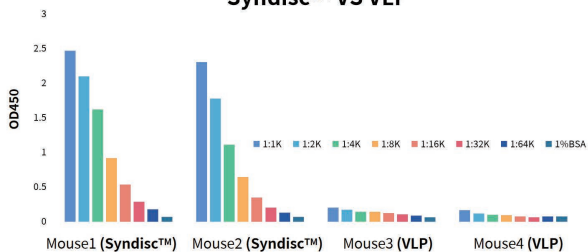
## SEC-HPLC



The purity of Human SLC7A11 full length protein-synthetic nanodisc is greater than 90% as determined by SEC-HPLC.  
12-pass Cystine/glutamate transporter, Cat. No. FLP100048

## Robust Immune Responses can be Induced by CLDN18.2 Syndisc™

### Syndisc™ VS VLP



Scan to watch our CLDN18.2 case study video

### More Information:

- For a complete product list, visit [www.dimabio.com/nanodisc](http://www.dimabio.com/nanodisc)
- For custom requests, contact us via [info@dimabio.com](mailto:info@dimabio.com)

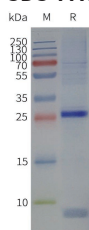
# PeptiNanodisc™ (Peptidisc-Based Nanodisc)



Human CLDN18.2-Strep full length protein  
PeptiNanodisc (Cat. No. FLP420014)

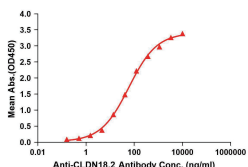
Optimized for cell-based assays

## SDS-PAGE

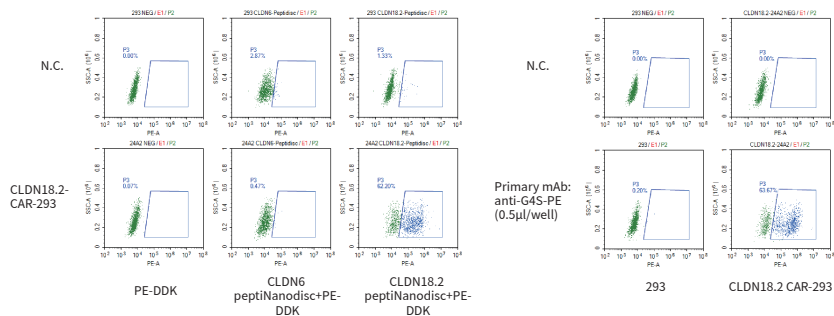


## ELISA

ELISA assay to evaluate CLDN18.2-Strep-PeptiNanodisc  
0.2µg Human CLDN18.2-Strep-PeptiNanodisc per well

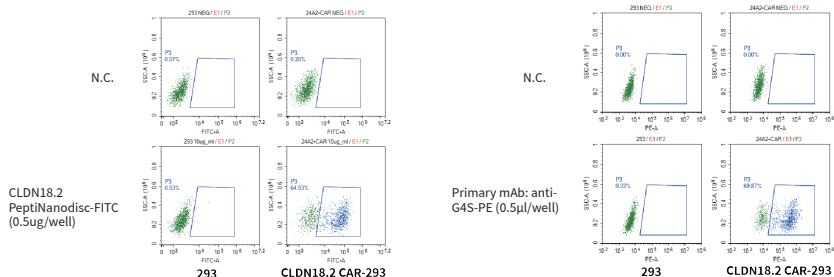


## CLDN18.2 CAR Detection Using Unlabeled PeptiNanodisc




CLDN18.2 PeptiNanodisc (Cat.No.FLP420014) enables highly specific and efficient detection of CLDN18.2 CAR positivity, offering an optimal solution for membrane protein-targeted CAR assays.

## CLDN18.2 CAR Detection Using FITC-Labeled PeptiNanodisc



FITC-labeled CLDN18.2 PeptiNanodisc demonstrated performance comparable to the G4S-PE method in detecting CLDN18.2 CAR positivity- confirming its utility in live-cell applications.

## Featured Nanodisc Products (In Stock)

Target	Cat.No.	Product name
/	FLP100000	Negative control-synthetic nanodisc
5HT2C	FLP120168	Human 5HT2C-Strep full length protein-synthetic nanodisc
ADGRE2	FLP100090	Human ADGRE2 full length protein-synthetic nanodisc
ADGRG3	FLP120202	Human ADGRG3-Strep full length protein-synthetic nanodisc
ADORA2	FLP120093	Human ADORA2B-Strep full length protein-synthetic nanodisc
ADORA2A	FLP100020	Human ADORA2A full length protein-synthetic nanodisc
	FLP120020	Human ADORA2A-Strep full length protein-synthetic nanodisc
ADORA2B	FLP100093	Human ADORA2B full length protein-synthetic nanodisc
ADRA2B	FLP120187	Human ADRA2B-Strep full length protein-synthetic nanodisc
ADRB1	FLP100157	Human ADRB1 full length protein-synthetic nanodisc
AGTR1	FLP110098	Human MBP-AGTR1 full length protein-synthetic nanodisc
APLNR	FLP100132	Human APLNR full length protein-synthetic nanodisc
AQP4-M1	FLP100504	Human AQP4-M1 full length protein-synthetic nanodisc
BDKRB2	FLP100123	Human BDKRB2 full length protein-synthetic nanodisc
C5AR1	FLP100086	Human C5AR1 full length protein-synthetic nanodisc
C5AR2	FLP100069	Human C5AR2 full length protein-synthetic nanodisc
CACNG1	FLP100616	Human CACNG1 full length protein-synthetic nanodisc
CB1	FLP100023	Human CB1 full length protein-synthetic nanodisc
CCR1	FLP100094	Human CCR1 full length protein-synthetic nanodisc
CCR2	FLP100028	Human CCR2 full length protein-synthetic nanodisc
	FLP400028B	Biotinylated Human CCR2 full length protein-PeptiNanodisc
CCR6	FLP100059	Human CCR6 full length protein-synthetic nanodisc
CCR8	FLP100037	Human CCR8 full length protein-synthetic nanodisc
	FLP400037B	Biotinylated Human CCR8 full length protein-PeptiNanodisc
CD151	FLP100071	Human CD151 full length protein-synthetic nanodisc
CD19	FLP100499B	Biotinylated Human CD19 full length protein-synthetic nanodisc
	FLP400499B	Biotinylated Human CD19 full length protein-PeptiNanodisc
CD63	FLP100030	Human CD63 full length protein-synthetic nanodisc
CD81	FLP100050	Human CD81 full length protein-synthetic nanodisc
CLDN18.2	FLP120014	Human CLDN18.2-Strep Full Length Protein-Synthetic Nanodisc 
CLDN5	FLP100079	Human CLDN5 full length protein-synthetic nanodisc
CLDN6	FLP100008	Human CLDN6 full length protein-synthetic nanodisc
CX3CR1	FLP100115	Human CX3CR1 full length protein-synthetic nanodisc
CXCR1	FLP100091	Human CXCR1 full length protein-synthetic nanodisc
CXCR4	FLP100074	Human CXCR4 full length protein-synthetic nanodisc
CXCR6	FLP100124	Human CXCR6 full length protein-synthetic nanodisc
	FLP120124	Human CXCR6-Strep full length protein-synthetic nanodisc

For more nanodisc protein options, please visit our website: [www.dimabio.com/nanodiscs](http://www.dimabio.com/nanodiscs)

## Featured Nanodisc Proteins (In Stock) – Continued

Target	Cat.No.	Product name
FSHR	FLP100047	Human FSHR full length protein-synthetic nanodisc
	FLP120047	Human FSHR-Strep full length protein-synthetic nanodisc
GIPR	FLP100130	Human GIPR full length protein-synthetic nanodisc
GLP1R	FLP100121	Human GLP1R full length protein-synthetic nanodisc
GNRHR	FLP120092	Human GNRHR-Strep full length protein-synthetic nanodisc
GPR151	FLP120271	Human GPR151-Strep full length protein-synthetic nanodisc
GPR65	FLP100103	Human GPR65 full length protein-synthetic nanodisc
GPR75	FLP100031	Human GPR75 full length protein-synthetic nanodisc
	FLP100031C	Human BRIL-GPR75 full length protein-synthetic nanodisc
	FLP110031	Human MBP-GPR75 full length protein-synthetic nanodisc
GPR87	FLP120062	Human GPR87-Strep full length protein-synthetic nanodisc
GPR88	FLP120321	Human GPR88-Strep full length protein-synthetic nanodisc
GPRC5D	FLP100011	Human GPRC5D full length protein-synthetic nanodisc
GRIA3	FLP120841	Human GRIA3-Strep full length protein-synthetic nanodisc
GRIK3	FLP120845	Human GRIK3-Strep full length protein-synthetic nanodisc
GRPR	FLP100118	Human GRPR full length protein-synthetic nanodisc
HCAR2	FLP120328	Human HCAR2-Strep full length protein-synthetic nanodisc
LGR5	FLP100073	Human LGR5 full length protein-synthetic nanodisc
LPAR1	FLP120334	Human LPAR1-Strep full length protein-synthetic nanodisc
LSHR	FLP120340	Human LSHR-Strep full length protein-synthetic nanodisc
MC4R	FLP100122	Human MC4R full length protein-synthetic nanodisc
NK2	FLP100360B	Biotinylated Human NK2R full length protein-synthetic nanodisc
NPY2R	FLP120371	Human NPY2R-Strep full length protein-synthetic nanodisc
NTSR1	FLP100131	Human NTSR1 full length protein-synthetic nanodisc
P2RX3	FLP120825	Human P2RX3-Strep full length protein-synthetic nanodisc
PTGER2	FLP120096	Human PTGER2-Strep full length protein-synthetic nanodisc
PTGER4	FLP120097	Human PTGER4-Strep full length protein-synthetic nanodisc
PTH1R	FLP120451	Human PTH1R-Strep full length protein-synthetic nanodisc
S1PR1	FLP120460	Human S1PR1-Strep full length protein-synthetic nanodisc
SCN2A	FLP100723	Human SCN2A full length protein-synthetic nanodisc
SCN8A	FLP120727	Human SCN8A-Strep full length protein-synthetic nanodisc
SCTR	FLP120465	Human SCTR-Strep full length protein-synthetic nanodisc
SLC7A11	FLP100048	Human SLC7A11 full length protein-synthetic nanodisc
STEAP2	FLP100043	Human STEAP2 full length protein-synthetic nanodisc
STING1	FLP100040	Human STING1 full length protein-synthetic nanodisc
TLR4	FLP100141	Human TLR4 full length protein-synthetic nanodisc
	FLP120141	Human TLR4-Strep full length protein-synthetic nanodisc

For more nanodisc protein options, please visit our website: [www.dimabio.com/nanodiscs](http://www.dimabio.com/nanodiscs)


# DIMA Biotechnology


Dedicate on immuno-oncology,  
Perfect with recombinant mAb development

## DIMA Biotechnology

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 Wuhan China

 [www.dimabio.com](http://www.dimabio.com)

 MD USA