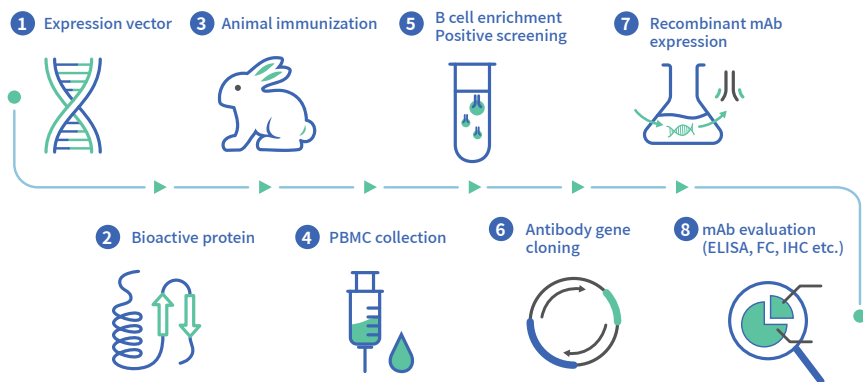


DIMA BIOTECH
Recombinant mAbs and proteins

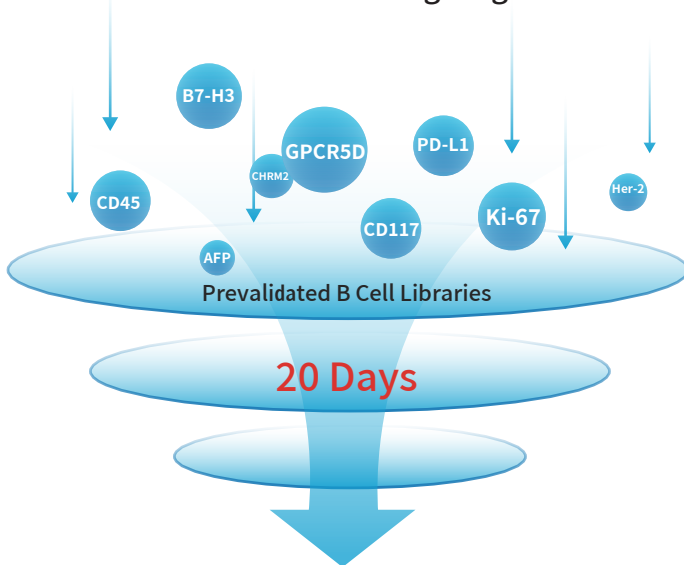
DIMA Highlights

Innovations in Therapeutic Antibody Discovery
and Functional Membrane Protein Production

DIMA Single B mAb Development Platform



Pre-validated B Cell Libraries for Drug Targets



1. High Efficiency: Obtain up to 10,000 positive IgG sequences from each immunized rabbit.
2. High Diversity: Immunize at least 5 rabbits for each drug target to ensure IgG sequence diversity.
3. High Speed: Obtain validated IgG sequences in as little as 20 days.

5000+ Prevalidated IgG Sequences with Global Licensing Options

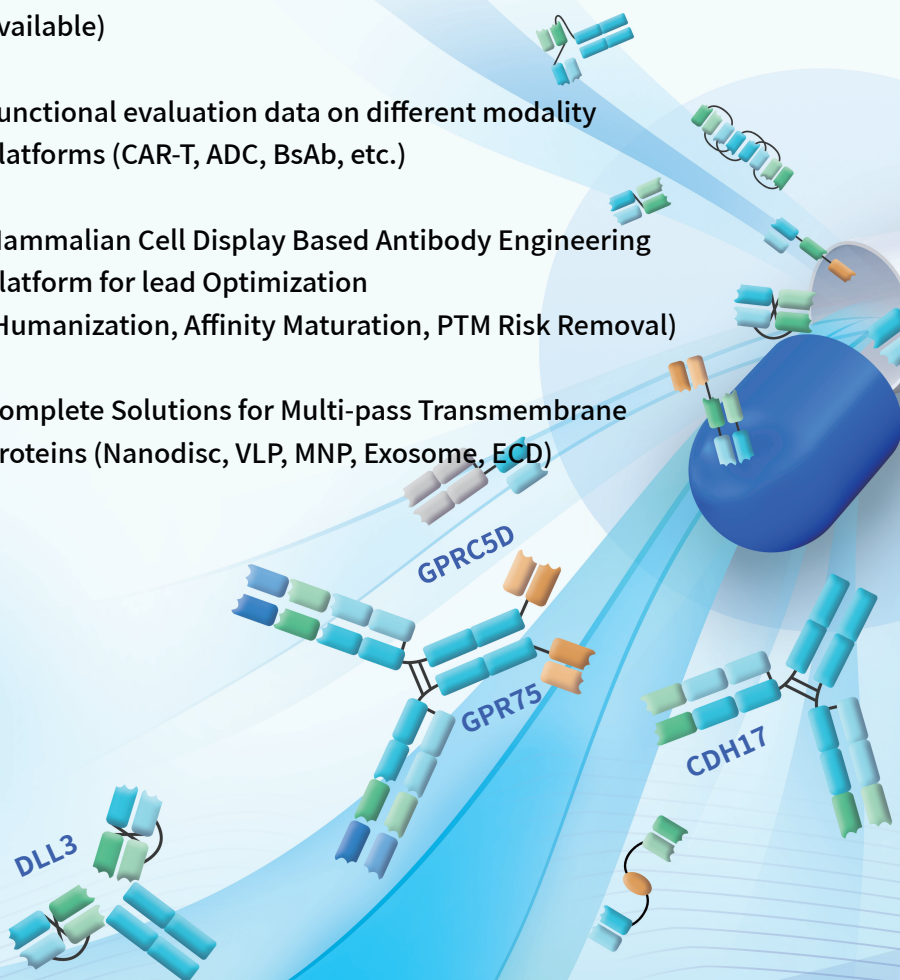
500+ Druggable Targets

No Upfront

No Waiting

No Risk

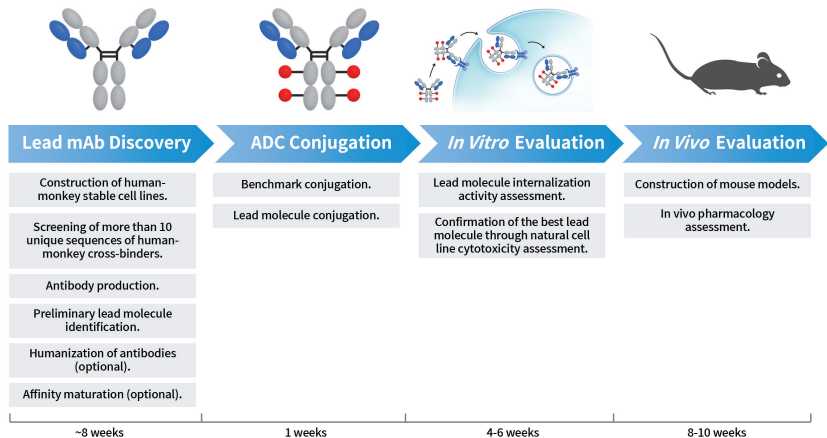
- Immediate Testing (Pre-clinical Validation Data Package available)
- Functional evaluation data on different modality platforms (CAR-T, ADC, BsAb, etc.)
- Mammalian Cell Display Based Antibody Engineering Platform for lead Optimization (Humanization, Affinity Maturation, PTM Risk Removal)
- Complete Solutions for Multi-pass Transmembrane Proteins (Nanodisc, VLP, MNP, Exosome, ECD)



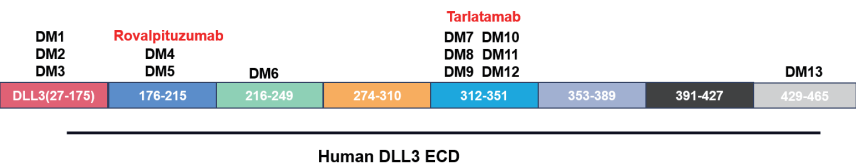
Discovery of ADC Lead Molecules

- Off-the-shelf Proteins & Lead mAbs
- Prevalidated B Cell Libraries
- Anti-payload and Anti-linker mAbs
- Antibody Internalization Assays
- Custom ADC Projects

Discovery of ADC Lead Molecules



Lead Molecule Epitope Binning



Hot pre-validated Lead mAbs against ADC Targets

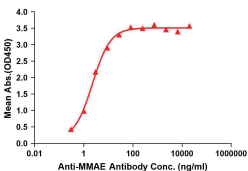


Anti-Payload/Linker Rabbit mAb

Target	sku	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

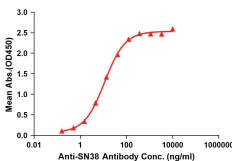
ELISA assay to evaluate Anti-MMAE antibody
0.2µg Human IgG-MMAE per well



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

SN38

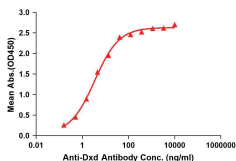
ELISA assay to evaluate Anti-SN38 Antibody
0.2µg Human IgG-SN38 per well



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

Dxd

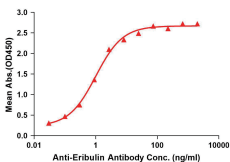
ELISA assay to evaluate Anti-Dxd Antibody
0.2µg Human IgG-Dxd per well



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

Eribulin

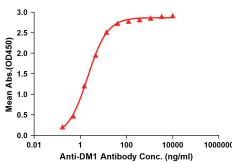
ELISA assay to evaluate Eribulin-Antibody
0.2µg Human IgG-Eribulin per well



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

DM1

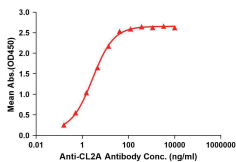
ELISA assay to evaluate Anti-DM1 Antibody
0.2µg BSA-DM1 per well



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

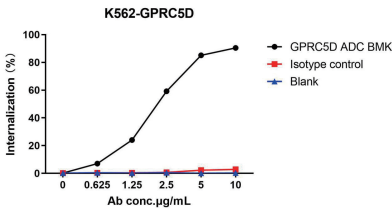
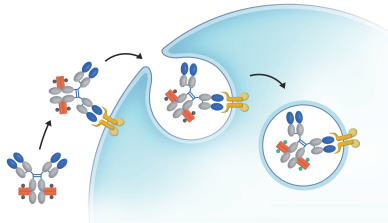


EC50 of anti-CL2A mAb binding to IgG-CL2A: 2.801 ng/mL.

DiTag™ IgG labeling reagents

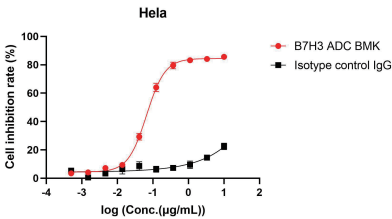
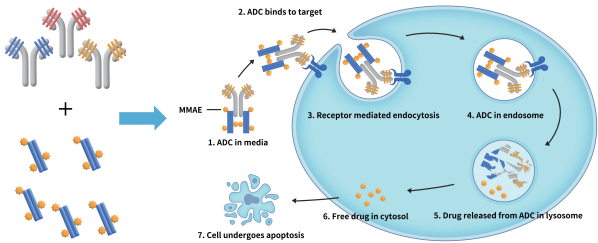
Catalog No.	Product Description
AME100001	DiTag™ pH sensitive IgG labeling reagent
AME100002	DiTag™ pH sensitive IgG labeling reagent plus
AME100003	DiTag™ MMAE IgG labeling reagent

pH-Sensitive IgG Labeling Reagents



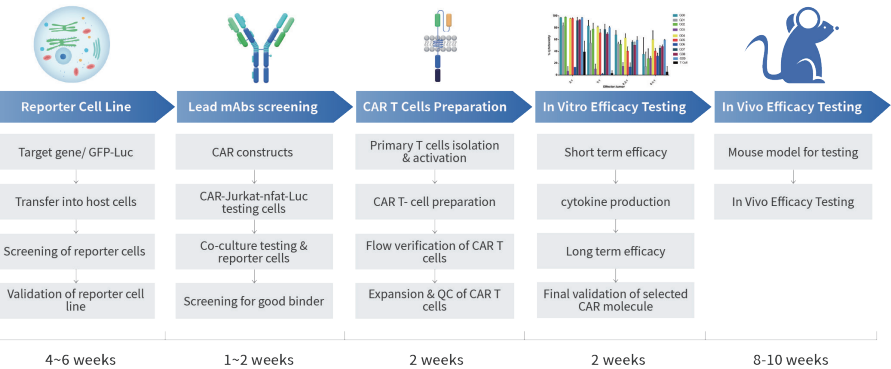
The fluorescent signal is anti-GPRC5D ADC BMK antibody dependent.

Payload Conjugated IgG Labeling Reagents

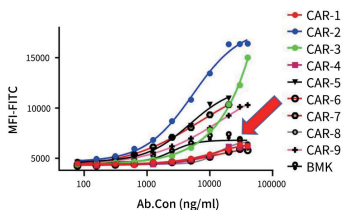


Cell inhibition detected by CCK8 method. B7H3 ADC is labeled with DiTag™ MMAE IgG labeling reagent (Cat. No. AME100003)

Discovery of CAR-T Lead Molecules

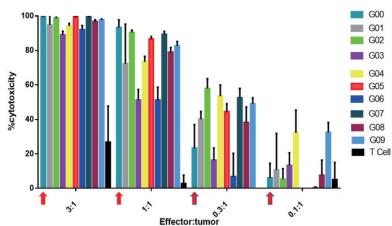


GPC5D scFv-hFc binding 8226 cell

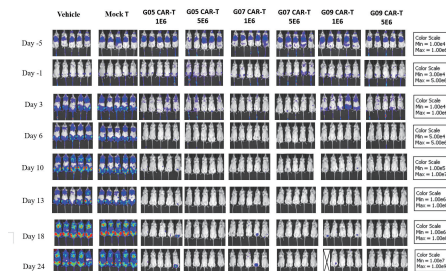


The samples marked with red arrows correspond to the reference CAR (BMK).

CAR-T-GPC5D / 8226-Luc 24 hours of co-culture

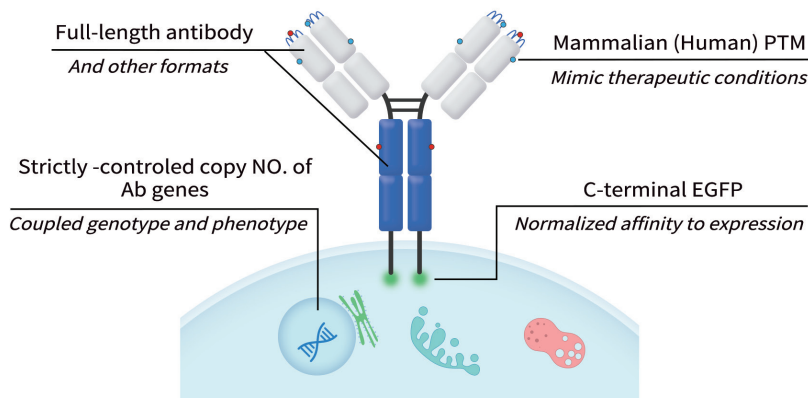


In vivo efficacy evaluation of the NSG mouse multiple myeloma model.

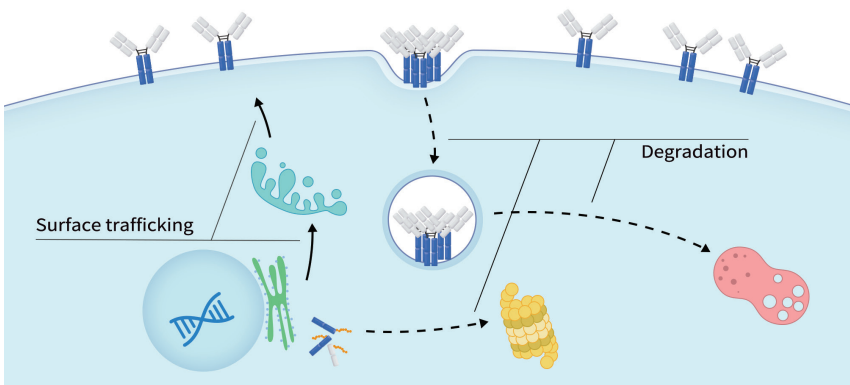


DiLibrary™: Mammalian Cell Display Based Antibody Engineering Technology

1. The design:

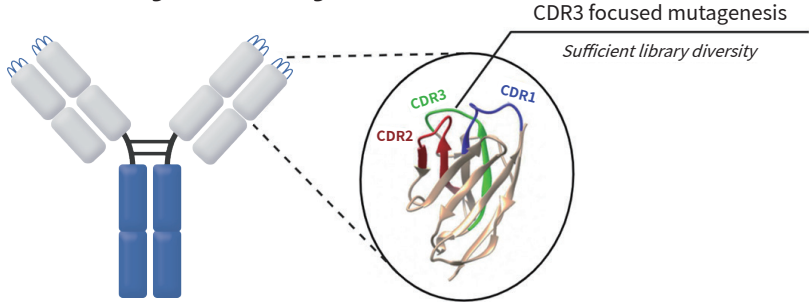


2. A natural screening system to fish out molecules with better developability:

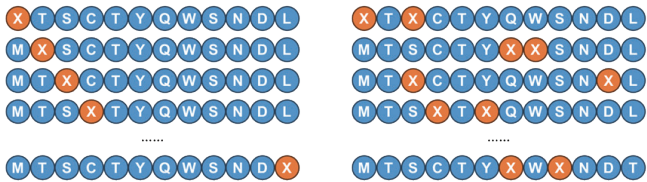


Structurally and chemically unstable molecules can be cleared out through mammalian cell internal quality control system.

DiLibrary™ applications: Antibody affinity maturation



AI optimized mutagenesis library

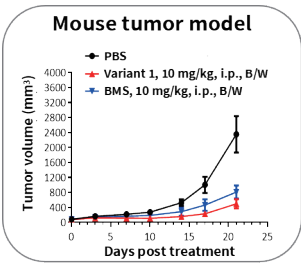
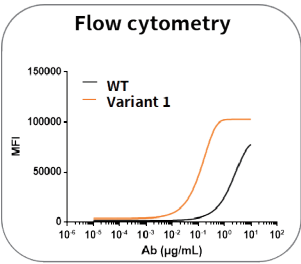


Case study:

Affinity maturation for CCR8 therapeutic antibody (WT)

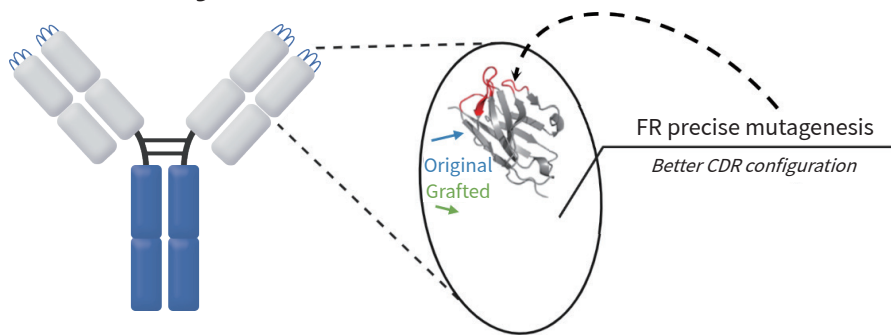
		Ka(M-1s-1)	Kd(s-1)	KD(M)	Rmax(RU)	Chi2(RU2)
Human	WT	2.82E+05	1.49E-02	5.26E-08	24.5	0.3697
	Variant 1	1.10E+05	7.22E-05	6.58E-10	73.0	0.9563

		Ka(M-1s-1)	Kd(s-1)	KD(M)	Rmax(RU)	Chi2(RU2)
Cyno	WT	7.56E+04	4.35E-05	5.75E-10	24.3	0.739
	Variant 1	1.21E+06	2.27E-04	1.88E-10	55.2	0.7985

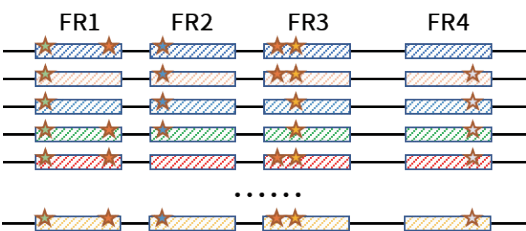


100-fold increase of affinity with only one amino acid mutation at each of LCDR3 and HCDR3.

DiLibrary™ applications: Antibody Humanization



Human IgG FR germline library



Case study:

Humanization of Anti-BCMA rabbit monoclonal antibody

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

Comparing with parental rabbit IgG, the humanized antibody (Hu-BCMA3) exhibits 18-fold increase on binding affinity to its target.

Biosimilar Reference Antibodies

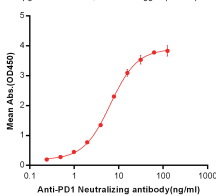
Wide Coverage of Hot
Drug Targets & Popular
Biosimilars

Validated with
In-House Recombinant
Proteins & Cells

PE & Biotin Labeling for
Versatile Applications

Case Study

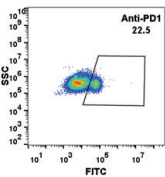
Anti-PD1 (pembrolizumab biosimilar) mAb ELISA



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

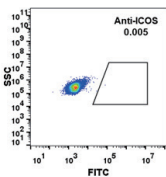
A

PD1



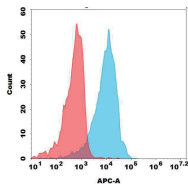
B

Irrelevant Protein



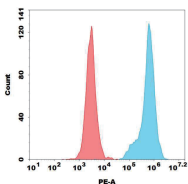
HEK293 cells expressing PD1 (A) or irrelevant protein (B) were stained with Anti-PD-1 pembrolizumab biosimilar (Cat# BME100006) 1µg/ml and Alexa 488-secondary.

Biotinylated

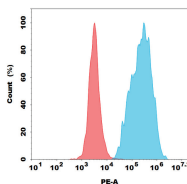


Biotinylated Anti-STEAP1 Vandortuzumab biosimilar (Cat.No.BME100188B) mAb on SNU-5 cell line (Blue histogram) or 293T (Red histogram).

PE-conjugated



PE-conjugated Anti-Trop2 sacituzumab biosimilar (Cat.No.BME100023P) on T-47D cell line (Blue histogram) or 293T (Red histogram).



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

Featured Products

Target	sku	Product name
TIGIT	BME100026	Anti-TIGIT (tiragolumab biosimilar) mAb
LILRB4	BME100237	Anti-LILRB4(MK-0482 biosimilar) mAb
GPC3	BME100147	Anti-GPC3(Hu9F2) mAb
TSHR	BME100079	Anti-TSHR (M22) mAb
MAPT	BME100498	Anti-MAPT(etalanetug biosimilar) mAb
GPC3	BME100083	Anti-GPC3(codrituzumab biosimilar) mAb
CLDN1	BME100750	Anti-CLDN1(eclutaturg biosimilar) mAb

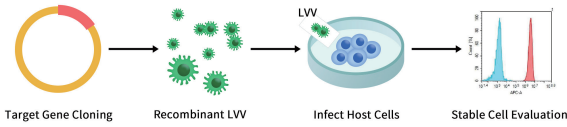
For more in-stock reference antibodies or custom services, please visit the DIMA website at <https://www.dima-bio.com/biosimilar-eference-antibodies> or contact info@dimabio.com for more details.

Gene Overexpression Stable Cell Lines

100+
STABLE CELL LINES

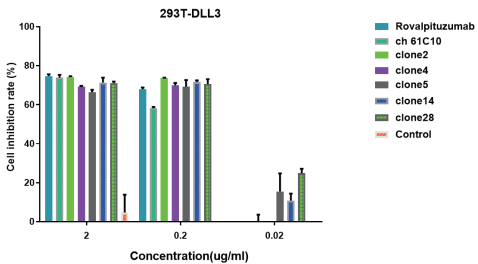
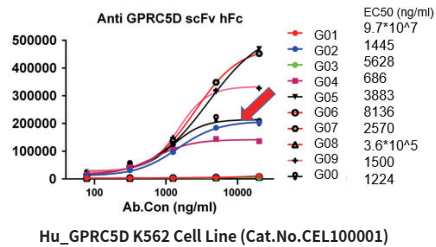
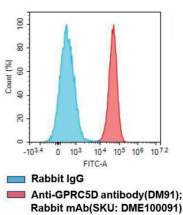
CUSTOMIZED
STABLE CELL LINES

- ✓ Including **K562**
293T, CHO,
Jurkat and more
- ✓ **Proven Applications**
Antibody Development
Preclinical Validation

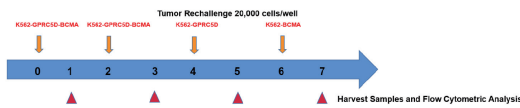


Case Study

Hu_GPRC5D K562 Cell Line



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



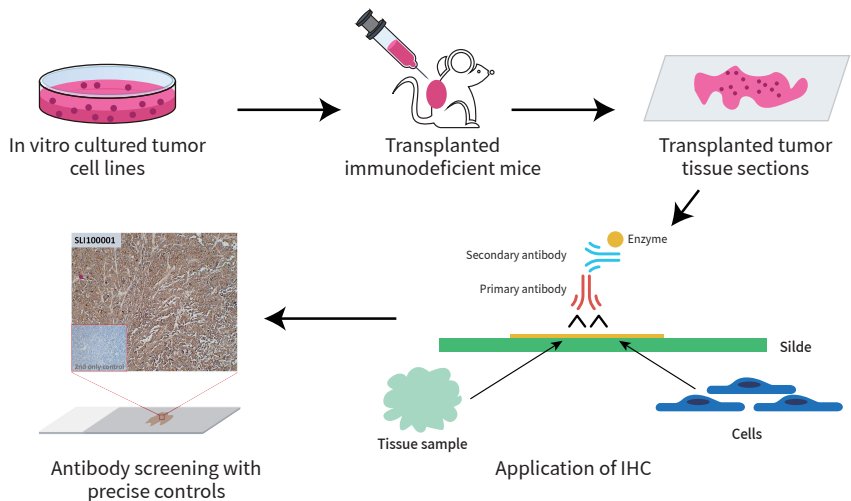
Using K562 stable cell lines expressing GPRC5D/BCMA as surrogate tumor cells, co-cultured with CAR-T cells. In this 7-day assay, CAR-T cells undergo four rounds of tumor challenge to assess the cytotoxicity of T cells against these "target cells," thereby evaluating the specificity of T cell-mediated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

Featured Products

Target	Host Cell	sku	Product name
GPRC5D	K562	CEL100001	Hu_GPRC5D K562 Cell Line
PD-L1	K562	CEL100022	Hu_PD-L1 K562 Cell Line
PD-L1	Jurkat	CEL100023	Hu_PD-L1 Jurkat Cell Line
EGFR	K562	CEL100005	Hu_EGFR K562 Cell Line
Trop2	K562	CEL100030	Hu_TROP2 K562 Cell Line
HER3	Jurkat	CEL100032	Hu_HER3 Jurkat Cell Line
CD47	CHO-S	CEL100040	Hu_CD47 CHO-S Cell Line
GPR75	CHO-S	CEL100092	Hu_GPR75 CHO-S Cell Line
B7-H3	K562	CEL100101	Hu_B7-H3 K562 Cell Line
CTLA-4	CHO-S	CEL100105	Hu_CTLA-4 CHO-S Cell Line
EGFR	K562	CEL100005	Hu_EGFR K562 Cell Line
VEGFR2	K562	CEL100074	Hu_VEGFR2 K562 Cell Line
CD63	CHO-S	CEL100082	Hu_CD63 CHO-S Cell Line
TIGIT	K562	CEL100083	Hu_TIGIT K562 Cell Line
GPC3	K562	CEL100084	Hu_GPC3 K562 Cell Line
IL21R	K562	CEL100086	Hu_IL21R K562 Cell Line
VSIG4	Jurkat	CEL100087	Hu_VSIG4 Jurkat Cell Line
CCR2	K562	CEL100088	Hu_CCR2 K562 Cell Line
CDH1	CHO-S	CEL100089	Hu_CDH1 CHO-S Cell Line
CCR5	K562	CEL100090	Hu_CCR5 K562 Cell Line
BTLA	K562	CEL100091	Hu_BTLA K562 Cell Line
CD123	K562	CEL100011	Hu_CD123 K562 Cell Line
CSF1R	K562	CEL100014	Hu_CSF1R K562 Cell Line
CD25	K562	CEL100020	Hu_CD25 K562 Cell Line
ACVR2B	CHO-S	CEL100093	Hu_ACVR2B CHO-S Cell Line
ACVR2A	CHO-S	CEL100094	M_ACVR2A CHO-S Cell Line
ACVR2B	CHO-S	CEL100095	M_ACVR2B CHO-S Cell Line
GPR87	293T	CEL100096	Hu_GPR87 293T Cell Line
ACVR2A	CHO-S	CEL100097	Hu_ACVR2A CHO-S Cell Line
GPR75	CHO-S	CEL100092	Hu_GPR75 CHO-S Cell Line
TSHR	293T	CEL100098	Hu_TSHR 293T Cell Line
FCRL5	K562	CEL100099	Hu_FCRL5 K562 Cell Line
CLDN18.2	K562	CEL100100	Hu_CLDN18.2 K562 Cell Line
B7-H3	K562	CEL100101	Hu_B7-H3 K562 Cell Line
CD19	K562	CEL100102	Hu_CD19 K562 Cell Line
PTPRG	K562	CEL100103	Hu_PTPRG K562 Cell Line

For more in-stock stable cell lines or custom services, please visit the DIMA website at <https://www.dimabio.com/-gene-overexpression-stable-cell-lines> or contact info@dimabio.com for more details.

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	sku	Product name
BCMA BTN3A1 CD138 CD147 CD30 CD33 CD38 CD47 CD63 CD99 CS1 GITR GPC1 GPRC5D ICAM-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

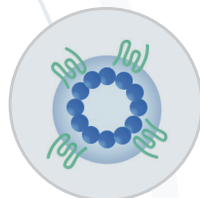
For more in-stock tissue sections or custom services, please visit the DIMA website at <https://www.dima-bio.com/cdx-tissue-sections-for-ihc-screening> or contact info@dimabio.com for more details.

Solutions for the Full-length Multi-pass Transmembrane Proteins

5 Production Platforms

Drug Targets for Cancer Therapy

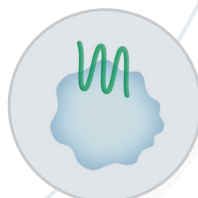
Function Validated Proteins



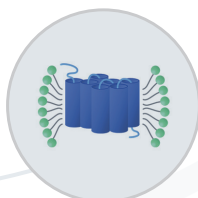
VLP



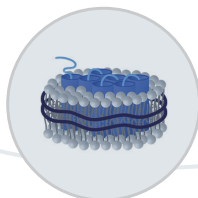
Exosome



MNP



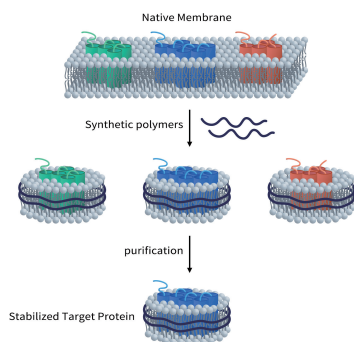
Detergent



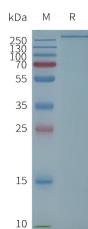
Synthetic Nanodisc

Synthetic Nanodiscs

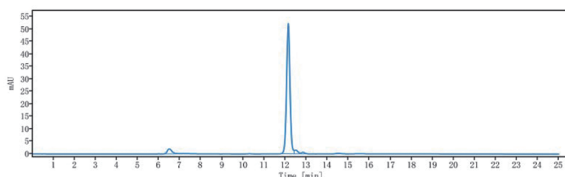
Multipass Transmembrane Proteins, Right off the Shelf.



- **Largest in-stock selection:** **500+** full-length multi-transmembrane proteins, including GPCRs and ion channels, leading globally.
- **Maximum transmembrane count:** Successfully produced **24**-transmembrane full-length proteins, pushing industry limits.
- **Comprehensive validation:** High purity, solubility, and stability, maintaining native conformation and supporting room-temperature shipping.
- **Flexible customization:** Personalized protein expression services to meet diverse research needs.

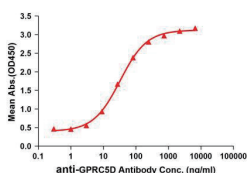


Human SCN5A-Nanodisc, Flag Tag on SDS-PAGE.
24-pass Na⁺ ion channel, cat. No.FLP100726



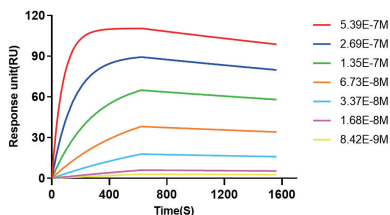
The purity of Human SLC7A11 full length protein-synthetic nanodisc is greater than 90% as determined by SEC-HPLC.
12-pass Cystine/glutamate transporter, Cat. No. FLP100048

ELISA assay to evaluate GPRC5D-Nanodisc
0.5µg Human GPRC5D-Nanodiscs per well



ELISA analysis using anti-GPRC5D monoclonal antibody (Cat. No. DME100090) and purified human GPRC5D full length protein-synthetic nanodisc,
7-pass GPCR, Cat. No. FLP100011

SPR assay to evaluate GPR75-Strep-Nanodisc



Human GPR75-Nanodisc can bind Anti-GPR75 antibody (DMC100368) with an affinity constant of 5.02 nM as determined in a SPR assay.7-pass GPCR, cat. No.FLP120031

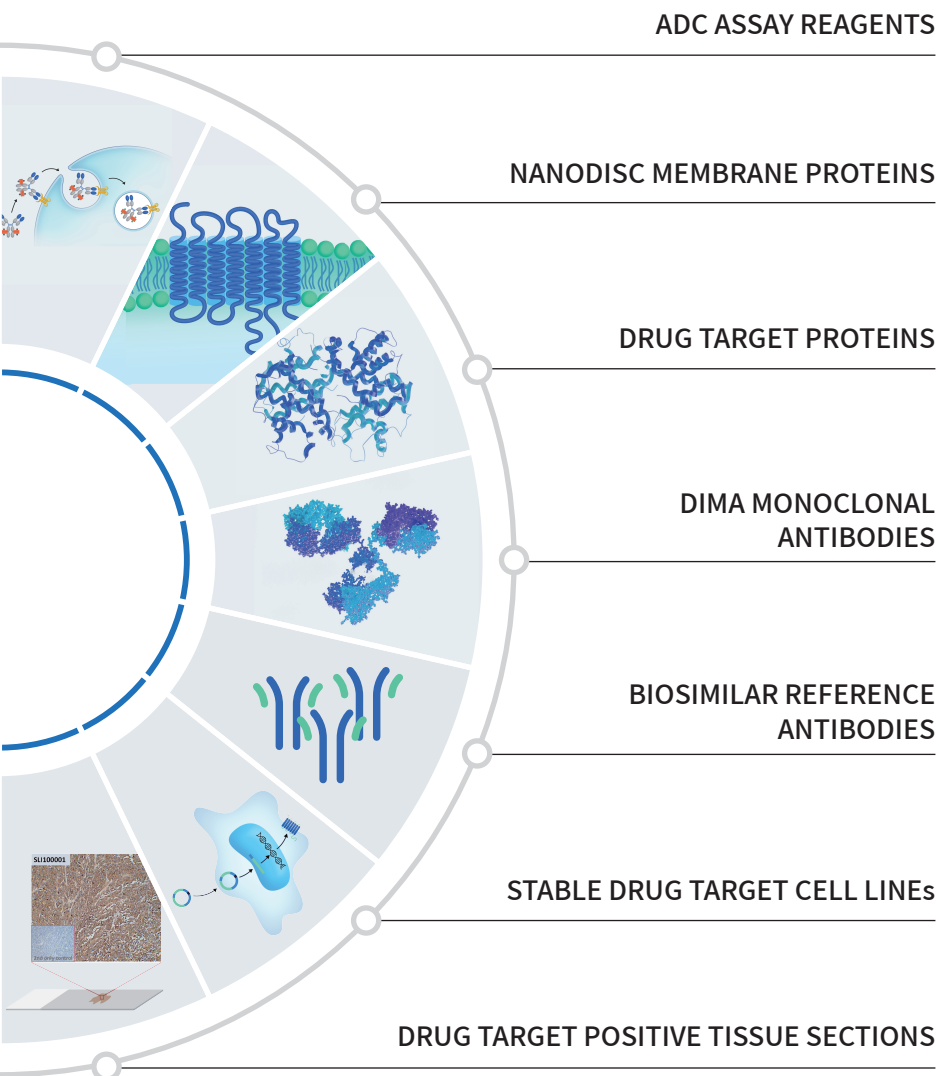
In-Stock Synthetic Nanodiscs for Multi-Pass Transmembrane Proteins

Featured GPCR Proteins

Target	Cat. No.	Product name
ADGRE2	FLP100090	Human ADGRE2 full length protein-synthetic nanodisc
ADORA2A	FLP100020	Human ADORA2A full length protein-synthetic nanodisc
C5AR1	FLP100086	Human C5AR1 full length protein-synthetic nanodisc
CB1	FLP100023	Human CB1 full length protein-synthetic nanodisc
CCR1	FLP100094	Human CCR1 full length protein-synthetic nanodisc
CCR3	FLP100075	Human CCR3 full length protein-synthetic nanodisc
CCR4	FLP100024	Human CCR4 full length protein-synthetic nanodisc
CCR6	FLP100059	Human CCR6 full length protein-synthetic nanodisc
CCR7	FLP100060	Human CCR7 full length protein-synthetic nanodisc
CCR8	FLP100037	Human CCR8 full length protein-synthetic nanodisc
CCR9	FLP100061	Human CCR9 full length protein-synthetic nanodisc
CXCR1	FLP100091	Human CXCR1 full length protein-synthetic nanodisc
CXCR2	FLP100066	Human CXCR2 full length protein-synthetic nanodisc
CXCR3	FLP100053	Human CXCR3 full length protein-synthetic nanodisc
CXCR4	FLP100074	Human CXCR4 full length protein-synthetic nanodisc
CXCR5	FLP100067	Human CXCR5 full length protein-synthetic nanodisc
CXCR7	FLP100095	Human CXCR7 full length protein-synthetic nanodisc
F2RL1	FLP100036	Human F2RL1 full length protein-synthetic nanodisc
FSHR	FLP100047	Human FSHR full length protein-synthetic nanodisc
FZD10	FLP100052	Human FZD10 full length protein-synthetic nanodisc
GCGR	FLP100085	Human GCGR full length protein-synthetic nanodisc
GPR75	FLP100031	Human GPR75 full length protein-synthetic nanodisc
GPRC5D	FLP100011	Human GPRC5D full length protein-synthetic nanodisc
HCRT1	FLP100099	Human HCRT1 full length protein-synthetic nanodisc
LGR4	FLP100072	Human LGR4 full length protein-synthetic nanodisc
LGR5	FLP100073	Human LGR5 full length protein-synthetic nanodisc
PTGER4	FLP100097	Human PTGER4 full length protein-synthetic nanodisc
SSTR2	FLP100013	Human SSTR2 full length protein-synthetic nanodisc
TSHR	FLP100045	Human TSHR full length protein-synthetic nanodisc

Discover Your Protein from Our Comprehensive Nanodisc Collection at the Following Website: <https://www.dimabio.com/synthetic-nanodisc-membrane-protein>

DIMA Products



DIMA Technology Platforms

1

DiMPro™ Membrane Protein Preparation Platform

2

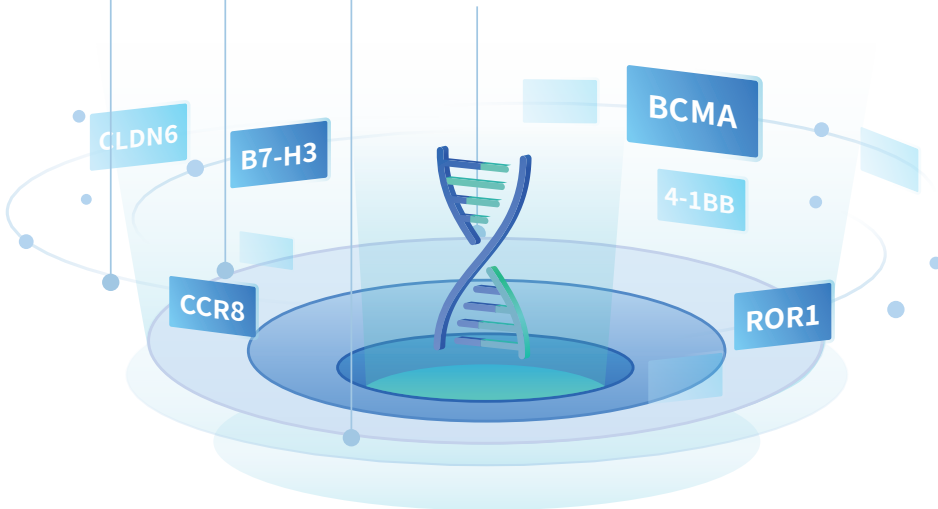
Single B Monoclonal Antibody Development Platform

3

Mammalian Cell Display Antibody Engineering Platform

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Preclinical Antibody Functional Evaluation Platform



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