March 2026

Accelerating Multispecific Antibody Discovery & Development

Industry-Leading Bispecific Platform
Flexible Partnering & Rapid Services

TWIST BIOSCIENCE | BIOPHARMA SOLUTIONS

Why Partner with Twist for Bispecifics

Speed: Accelerated timeline - bispecific leads in 4 months, B-Body bispecifics from your mAb sequences in 4 weeks

Innovation: Fully validated discovery workflows & proprietary B-Body® bispecific antibody platform

Manufacturability: CMC-ready formats, Industry-leading yields (up to 11 g/L), sub-Q compatible, standard down stream processes

Flexible Business Models: Integrated in vitro and in vivo discovery, express antibody and B-Body production and characterization

Proven Track Record: 445+ partners, 195+ active programs, B-Body Bispecifics in clinic, and Strong IP protection

B-Body: The Ideal Bispecific Platform

1. Accelerates Lead Identification

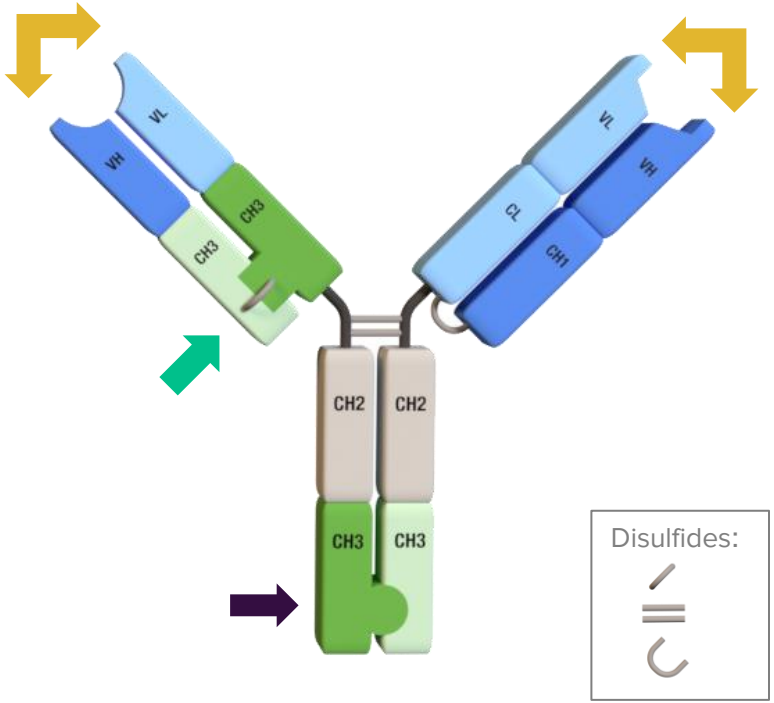
- Screen in final format to eliminate reformatting risk
- Compatible with high-throughput screening
- Rapid purification for assay-ready molecules

2. Reduces Manufacturing Risks

- 5-10⁺ g/L expression in stable CHO cells
- Uses standard mAb purification platforms
- Minimal side products from bsAb assembly
- mAb-like solubility and low hydrophobicity

3. Compatible with IgG-Like Modifications

- mAb-like structure with similar disulfides for ADC conjugation (DAR 6)
- Easily incorporated Fc-modification while maintaining high biophysical stability



B-Body Express™: Rapid, Flexible B-Body Antibody Expression

Step 1: Design & Quote
Collaborate to select format, sample quantity, and scale

Step 2: Express & Purify
Twist prepares DNA, expresses, and purifies construct for high purity

Step 3: Analyze & Deliver
Receive QC'd B-Body —full yield, no retention limits

Receive high-purity B-Body bispecifics in as few as 4 weeks

Key Features:

Fast Turnaround:

- 4 weeks from DNA to purified B-Body bispecifics

Flexible Formats:

- mAb, 1×1, 2×1 and 2×2 B-Body

Scalable Production:

- Choose 50 mL, 200 mL, or 500 mL

Full Yield Delivery:

- Receive 100% of B-Body yield

Seamless B-Body Integration:

- Test B-Body bispecifics in a clinically-validated

Simple Licensing Path:

- Research-use rights with clear path to commercial terms

B-Body® Bispecific Antibody Platform

B-Body® Bispecific Platform: Better Biologics by Design

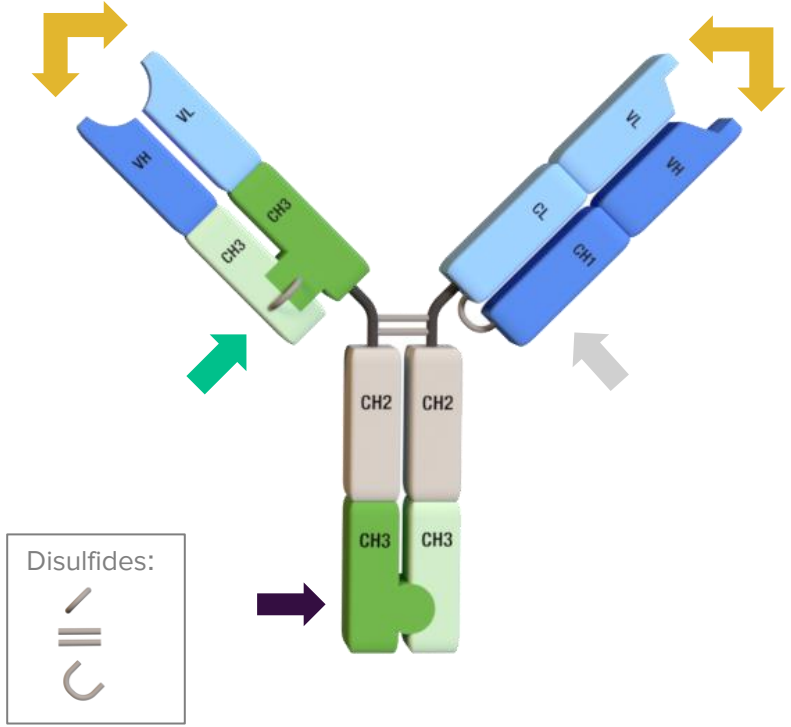
Innovations for Discovery to CMC

FC Region: Clinically Validated KiH
- Drive heavy chain heterodimerization
- Compatible with Standard Fc substitutions

Fab Arm: Proprietary CH3 Domains
- Substitutes for CH1/CL in one Fab Arm
- Solves light chain mispairing issue
- Novel CH3 substitutions
- Natural pI asymmetry reduces need for added engineering

Proprietary Symmetrical HC and LC Inversions in Fab Arms
- Enhance expression yield and stability
- Facilitate one-step purification

Sole Ch1 Domain Allows Purification Beyond Protein A/EX
- One-step purification with anti-CH1 resins
- Simplifies in-format discovery



B-Body Platform: Consistent Expression Throughout Development Stages

Typical B-Body Performance from Transient Expression:

- Typical transient expression levels 0.1 - 1 mg/ml
- High initial product quality post-capture (> 80%)
  - Streamlines early development and reduces risk
  - Early product quality is predictive of manufacturing outcomes
- Achieves 95+% SEC purity via SE-HPLC and SDS-PAGE following a streamlined two-step purification
- No detectable homodimers observed by LC-MS analysis

Typical Expression Yields

B-Body Bispecific Antibody Expression in CHO		
Transient	Pool	Clone
0.1- 1.0 g/L	3- 5 g/L	6 – 11 g/L

The B-Body Platform Mitigates Risk from Transient to Stable Cell Line Production

100 mL Scale Production Example of a B-Body Bispecific Lead

High-yield, high-purity B-Body bispecific antibody produced via single Protein A purification from transient CHO cells, demonstrating stability and resolution in chromatography

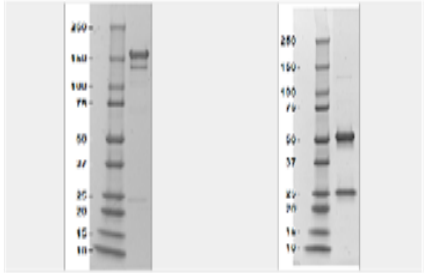
Expression Titer: 442.8 mg/L

Purification resin	MabSelect Sure	
Molecular Weight	146270	Da
Extinction Coeff.	227620	1/M*cm
Isoelectric Point	7.8	
Formulation	PBS	

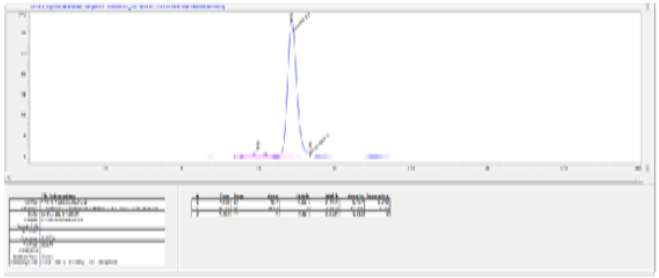
Biophysical

PDI	Z-Ave (nm)	Tm (°C)	Tagg (°C)
0.410	71.6	68.7	66.2

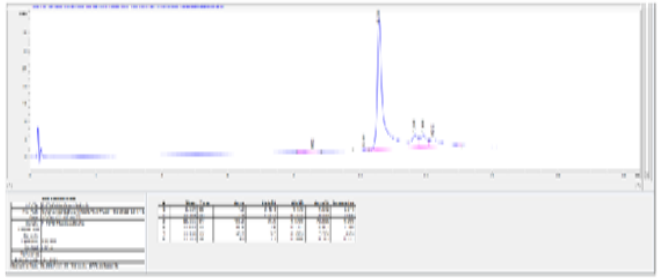
Non-reduced SDS PAGE | Reduced SDS PAGE



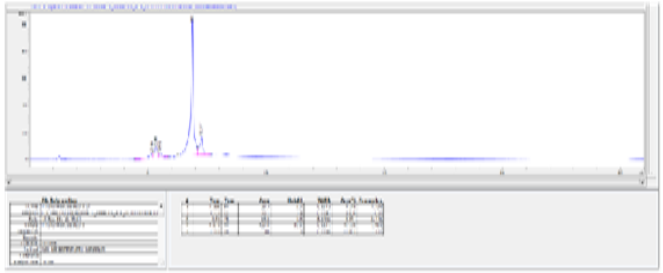
SEC 93.3% pure



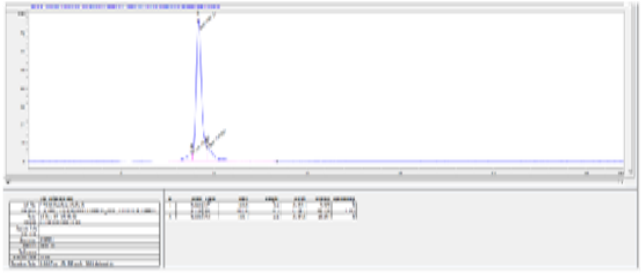
HIC



SCX



SMAC

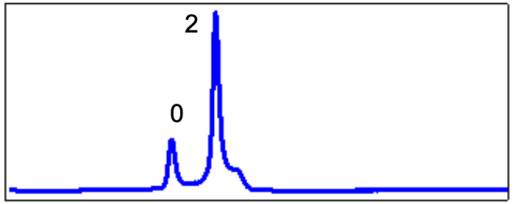


HPLC separations provide predictive insights for analytical development, downstream processing, and formulation optimization

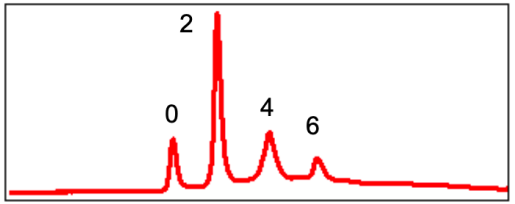
B-Body Bispecific Compatibility with Cysteine Conjugation Methods

- B-Body can achieve a DAR6 using standard conjugation protocols
- DAR8 is not achieved due to high stability and limited access to the disulfide bond in the B-Body Domain

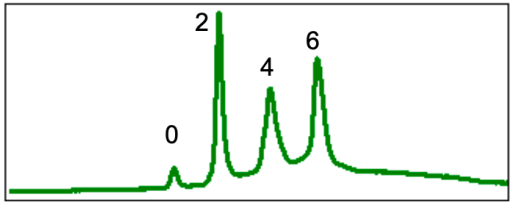
B-Body Partial Reduction



1x conditions (DAR 1.6)

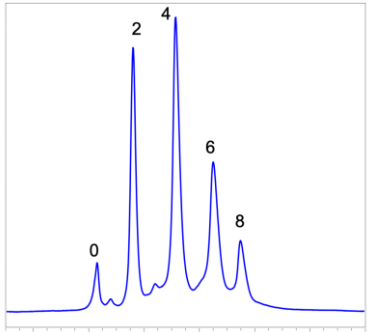


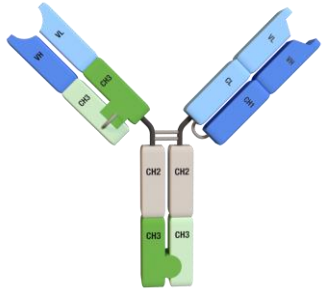
2.5x conditions (DAR 2.8)



3.6x conditions (DAR 4.1)

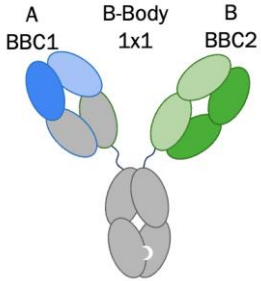
Conventional DAR4 ADC: 1X Conditions





B-Body Bispecific Compatibility with Standard Fc Substitutions

Testing Fc enhancing substitutions in B-Body 1x1 with control binder arms



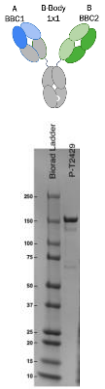
Production overview:

25 mL Transient CHO Expression → Anti-CH1 Purification → PBS Formulate → Dispense Analyze

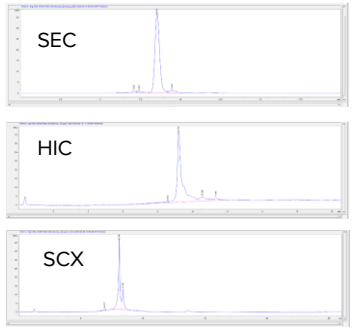
DNA Chain Ratio: Standard

SDS-PAGE, HPLC

Fc mods	PI	Expression Titer (mg/L)	Yield (mg)	Purity % main SEC	SEC retention time (min)	HIC retention time (min)
WT Fc	7.97	284	7.1	93.1	8.543	9.157
Fc Type A	7.97	220	5.5	95.5	8.554	9.328
Fc Type B	7.82	456	11.4	90.8	8.501	9.395
Fc Type C	8.22	475	11.9	89.7	8.936	9.343
Fc Type D	8.22	204	5.1	94.1	8.572	9.251
Fc Type E	8.42	461	11.5	90.0	8.571	9.277



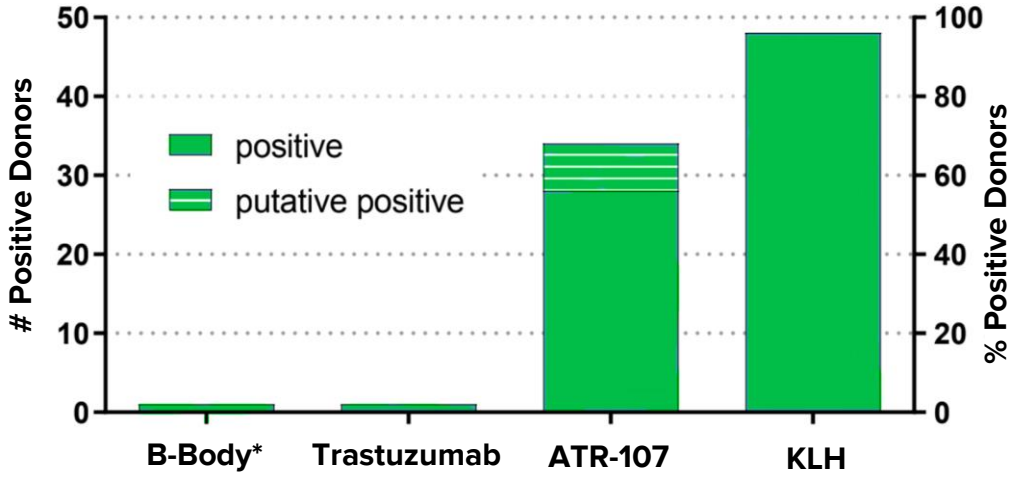
Control 1x1
1-step purified with anti-CH1 resin



Immunogenicity: T Cell Proliferation Assay Similar to Trastuzumab

CD8-Depleted PBMC Assay (50 Donors)

Proliferation



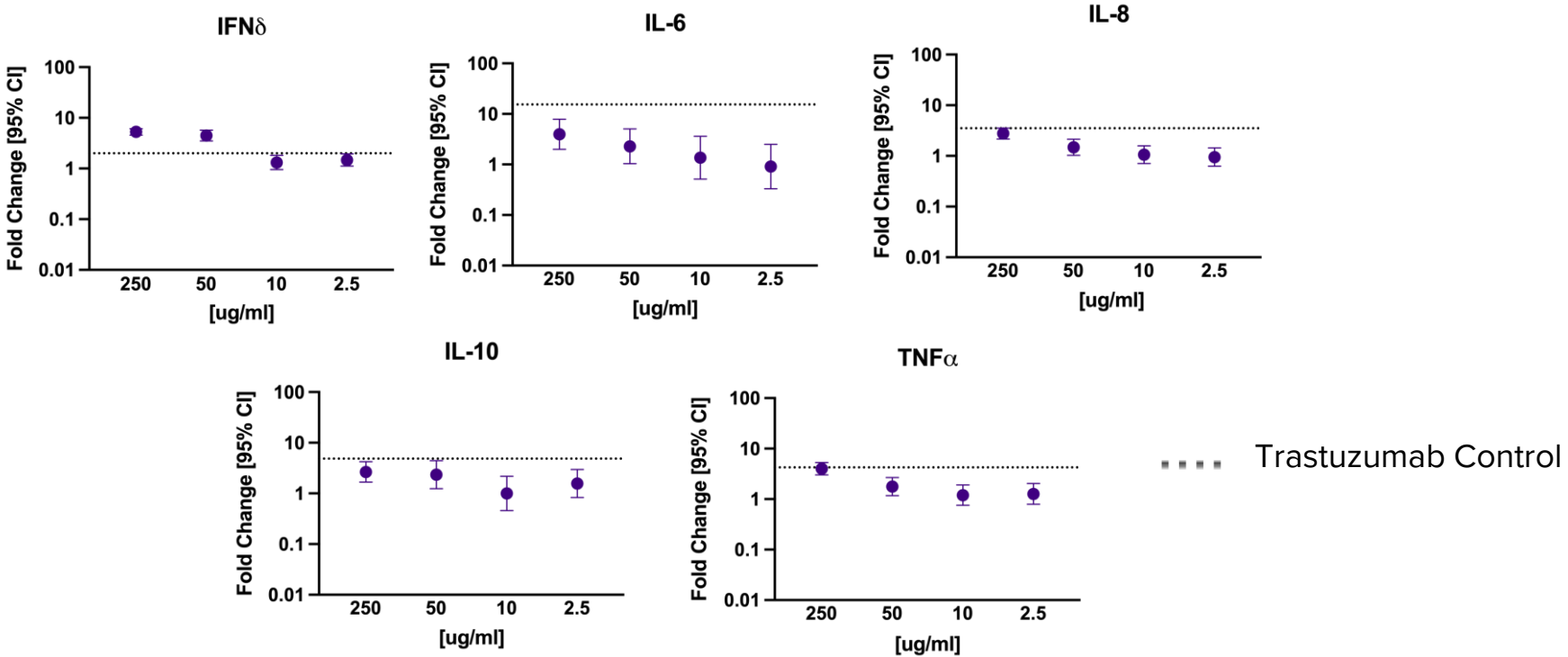
** B-Body with Trastuzumab variable regions on both Fab arms*

Statistical Analysis

- Based on counts of CD4+EdU+ cells with normalization for CD4+ count
- Stimulation indices are calculated per donor [mean response in test condition/mean response in reference condition]
- Positive reactions have a stimulation index greater than 2

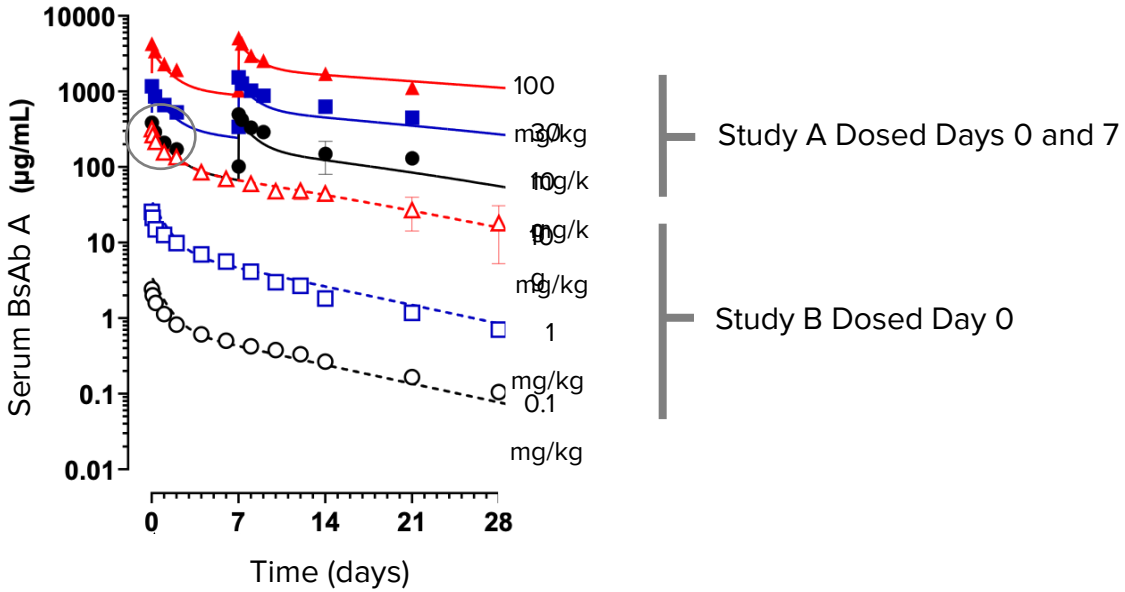
Immunogenicity: Cytokine Release Assay was Clean

B-Body Bispecifics exhibit similar *in vitro* cytokine profile as a clinical Ab control



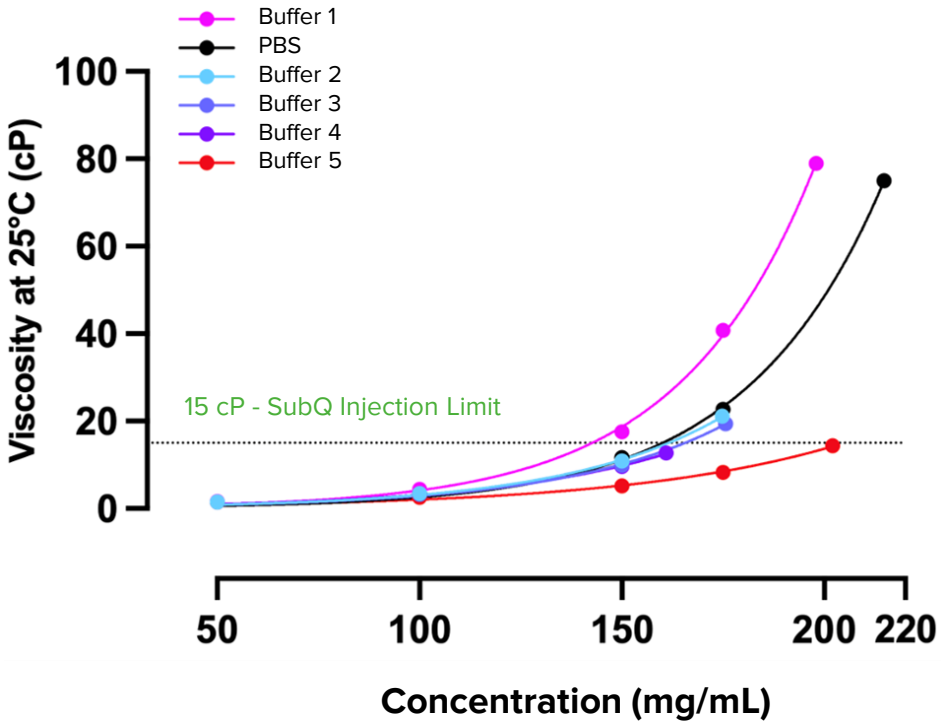
B-Body Bispecific: Safety and Strong PK Profile in Cyno Studies

Pharmacokinetics of BsAb A in Cyno Studies



B-Body Bispecific: High Solubility - Low Viscosity for Optimal Formulation

Viscosity vs. Concentration of BsAb A in Excipient-Free Formulations



Excellent Solubility & Sub-Q Compatible Viscosity

- Compatible with Sub-Q administration, achieving up to 200 mg/mL without exceeding the injectable viscosity limit (<15 cP)
- Sub-Q offers a faster, more convenient option for patients

Pressure-testing the B-Body Platform

Goal: assess platform flexibility in accepting a variety of antibodies at clinical stage

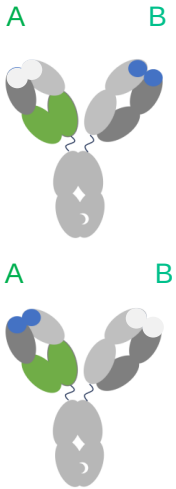
- Select candidates with range of developability metrics, as described by Jain et al. (2017)
- Express a matrix of 15x15 bsAb at screening scale, one-step purify using CH1
- Measure key developability and functional metrics
  - Score on purity and yield
  - Collect antigen binding data
  - Verify identity

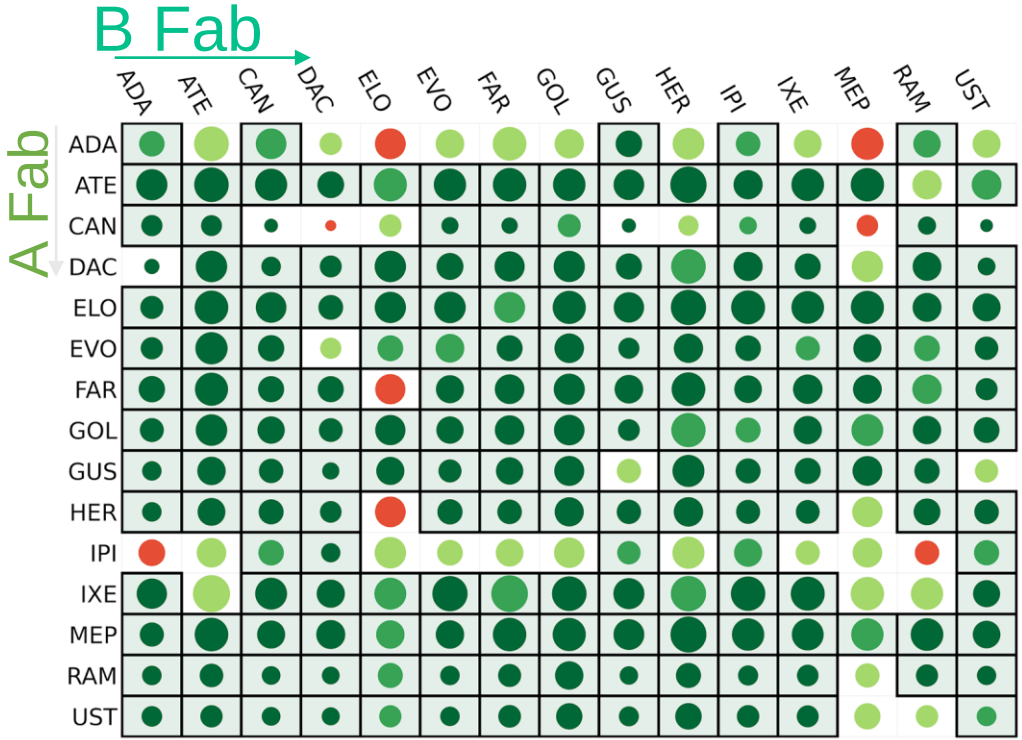
Candidate Antibodies For Plug and Play

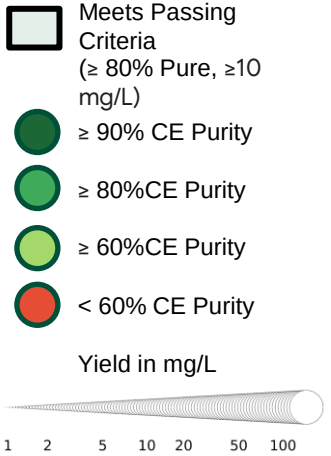
Clinical Ab	mAb Purity CE	mAb Yield mg/L	Selected Developability Flags*
ADA	100	117	None
ATE	100	84	High SMAC Retention
CAN	100	59	None
DAC	100	66	None
ELO	99	81	None
EVO	100	100	Lambda Light Chain
FAR	100	84	None
GOL	100	93	Low SGAC-SINS
GUS	100	193	High SMP Score, Lambda Light Chain
HER	100	100	None
IPI	99	133	None
IXE	100	80	High SMP Score
MEP	100	61	None
RAM	99	74	None
UST	100	46	None

*data from Jain et al. (2017) *PNAS*

“Plug & Play” Validation of the B-Body Platform

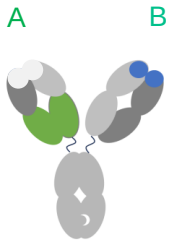


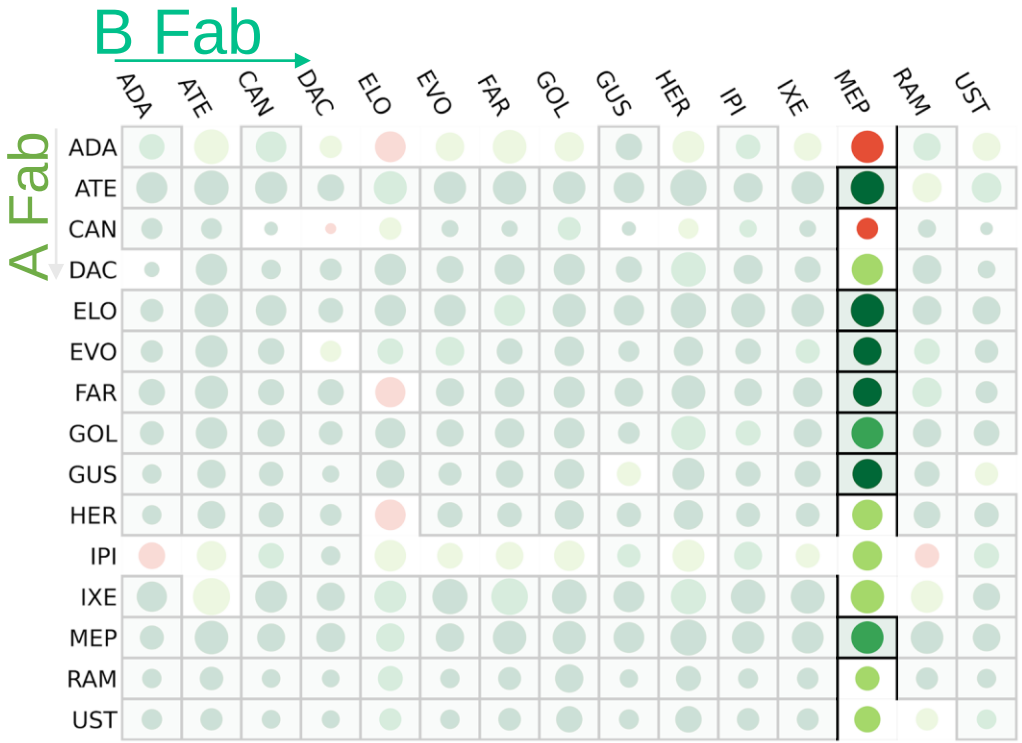


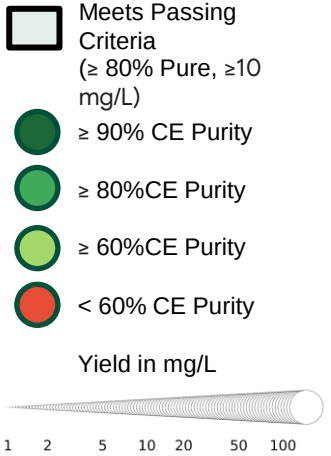


>99% of Matrixed Molecules Have at Least One Successful Pairing

“Plug & Play” Validation of the B-Body Platform







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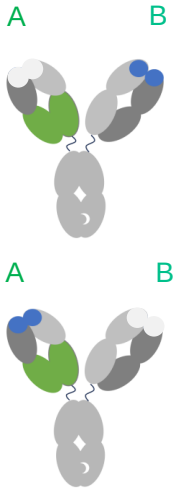
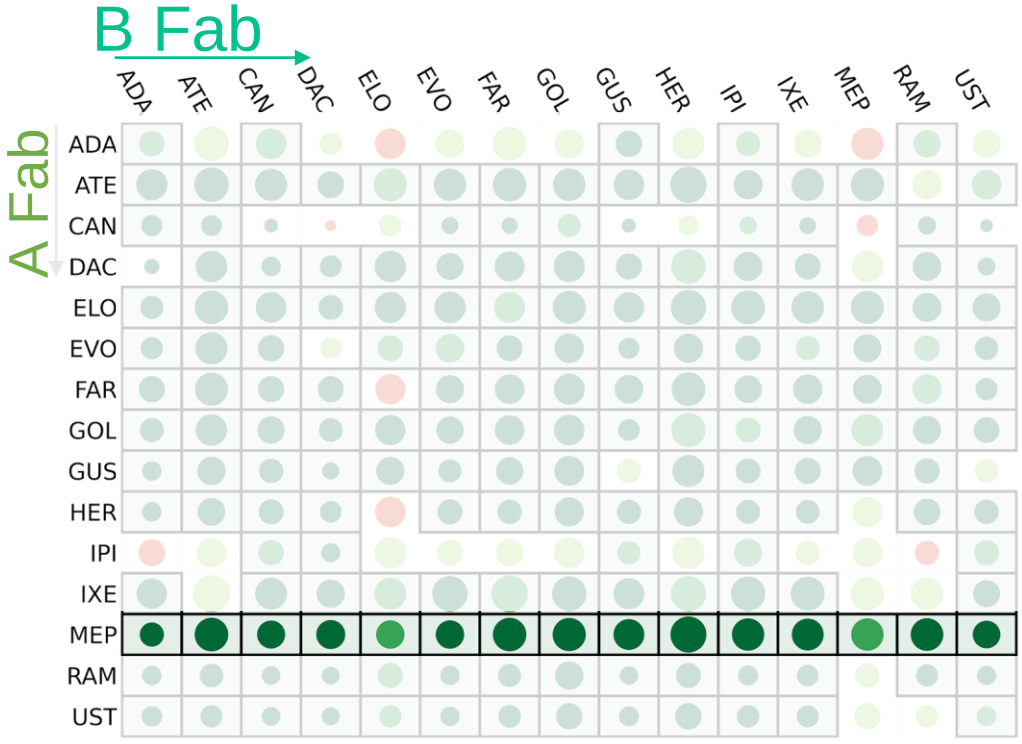
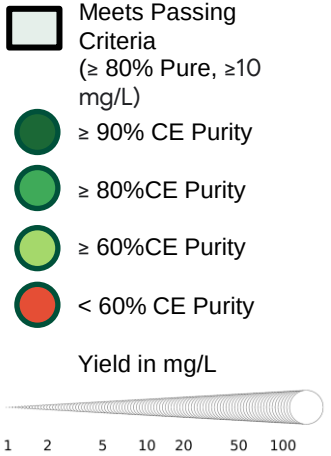


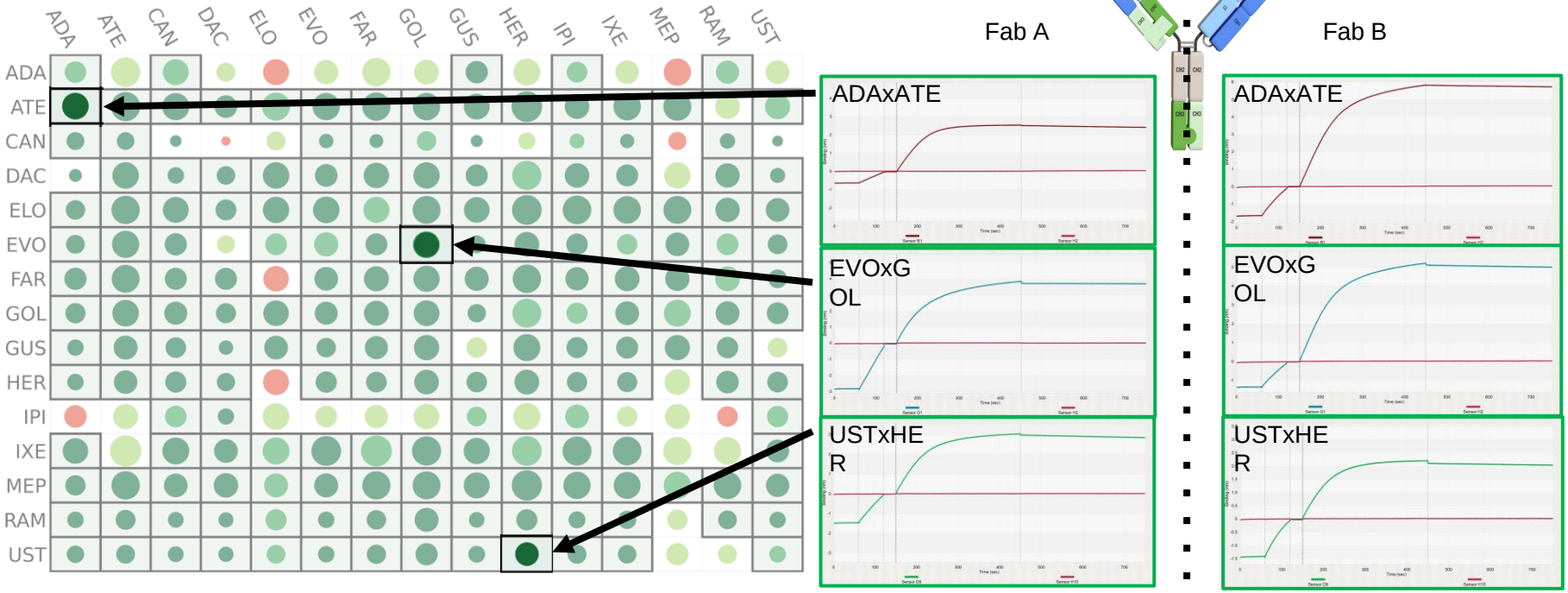




>99% of Matrixed Molecules Have at Least One Successful Pairing

B-Body Bispecific Binding to Respective Target Antigens

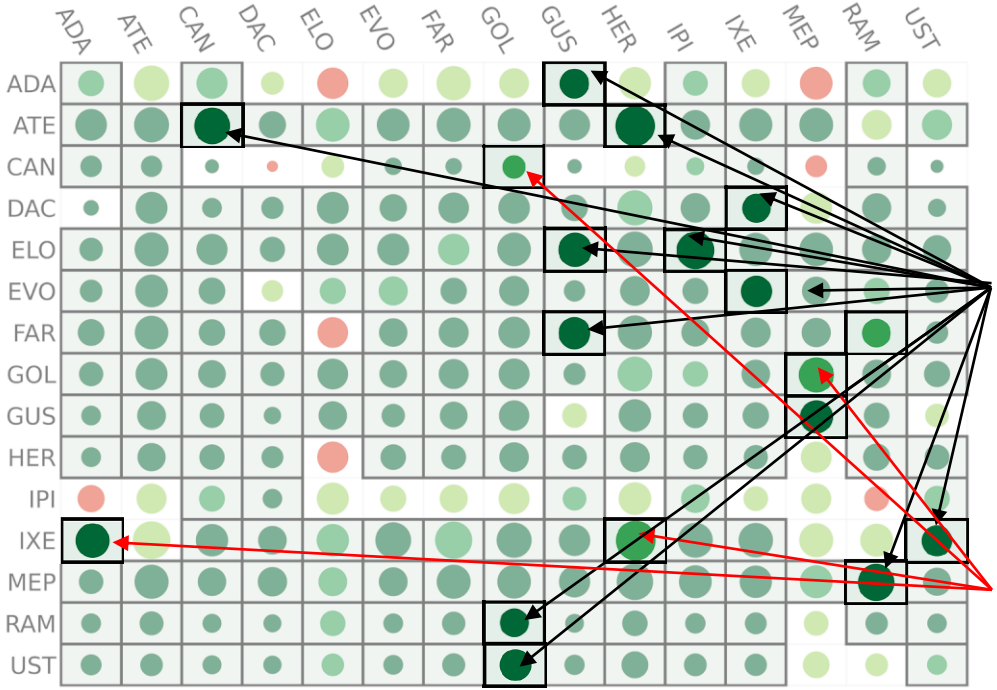
Clinical B-Body bispecifics assayed for target binding/BLI (Octet) on each arm



LC-MS Confirms Assembly

MS analysis on select well-behaved samples to confirm the full assembly of K-H bispecific antibody

14 of 18 had no detectable homodimer



No Homodimer Detected

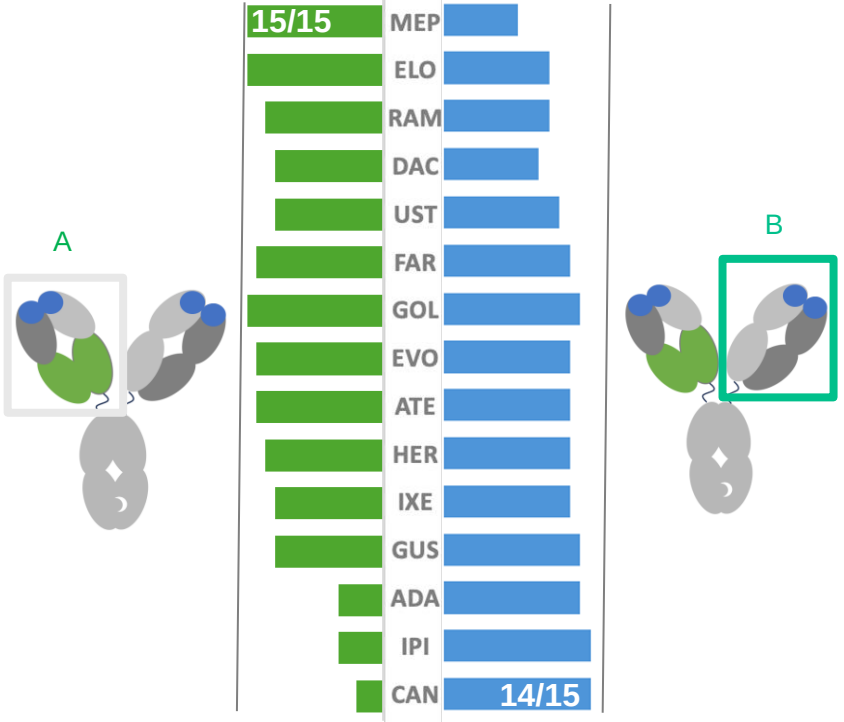
ADAxGUS
ATExCAN
ATExHER
DACxIXE
ELOxGUS
ELOxIPI
EVOxMEP
FARxGUS
FARxRAM
GUSxMEP
IXExUST
MEPxRAM
RAMxGOL
USTxGOL

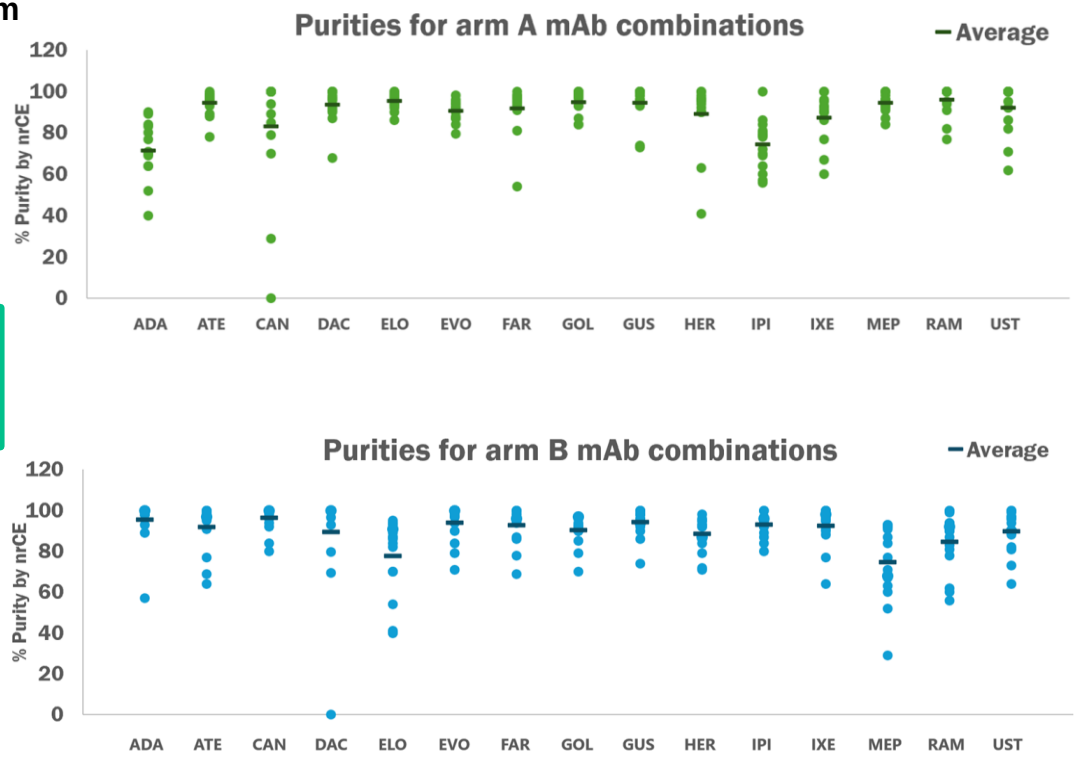
Minimal Homodimer Detected (<10%)

CANxGOL
GOLxMEP
IXExADA
IXExHER

B-Body “Plug & Play” Enables Early Bispecific Discovery

Count of successful mAb combinations for each arm

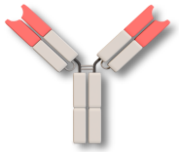




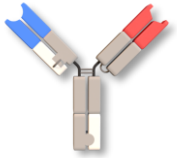
>99% of Matrixed Molecules Have at Least One Successful Pairing

B-Body® Bispecifics Family

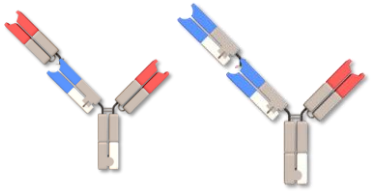
High Performance in Both Discovery and Manufacturability



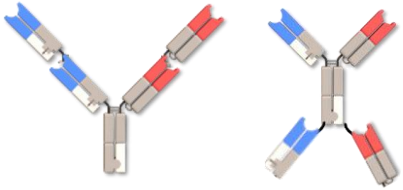
Monoclonal Ab



Bispecific 1x1 B-Body ®



Bispecific 2x1 B-Body ®



Bispecific 2x2 B-Body ®

The B-Body ® platform enables high throughput functional discovery in the final therapeutic format

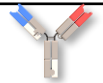
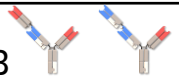
B-Bodies ® are designed for compatibility with standard manufacturing processes required for therapeutic development

Binding Specificity #1

Binding Specificity #2

B-Body Bispecific Compatibility in Versatile Formats

B-Body formats have been validated for high expression and assembly

Format	PI	Titer (mg/L)	Purity % main SEC*	SEC retention time (min)	HIC retention time (min)
Control mAb A 	8.27	400	99.1	8.698	9.221
Control mAb B 	8.16	485	100	8.489	8.527
B-Body 1x1, A/B 	7.97	284	93.1	8.543	9.157
B-Body 1x2, A/AB 	7.88	219	89.0	7.965	9.9
B-Body 2x2 Y, BA/AB 	7.99	170	84.9	7.5	9.6
B-Body 2x2 X, AB/BA 	7.95	99	72.1	7.7	9.9

B-Body Bispecific Platforms

Purity data of >1000 B-Body bispecifics from transient CHO expression

- Single chain ratio tested
- Fit-for-purpose expression and purification protocols
- Diverse variable domain sources

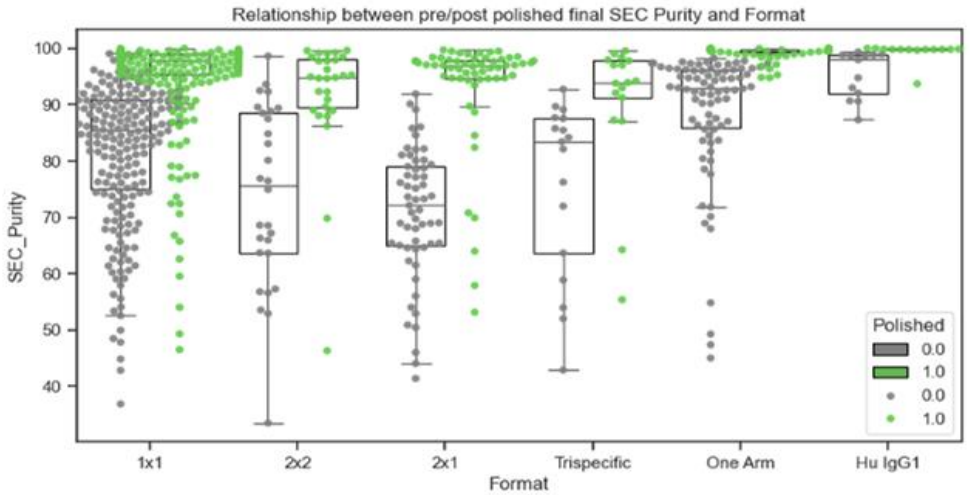
>95% of 1x1s achieve SEC purity target

Fast and reliable multispecific antibodies from “off the shelf” variable domains

- Ideal for rapid generation of tool and proof-of-concept multispecific antibodies at low cost

Delivery of High-Purity Multispecific Antibodies Across Many Formats

Across formats, polishing consistently yields ≥90–95% SEC purity



Grey - % main peak purity (HPLC-SEC), post anti-CH1 capture
Green - % main peak purity (HPLC-SEC), post polishing chromatography

The B-Body Platform: Best-in-Class Performance

Superior Yields. Seamless Purification. Unmatched Developability.

Metric	B-Body Platform	Industry Standard
Discovery Throughput	High: 250+ bispecifics screened in final format per project	Low: Limited capacity, often requires reformatting
Lead Screening Speed	Full lead panels delivered in 4 months	6–12 months, with additional time for reformatting
Yield (CHO Stable Clone)	6-11 g/L	1-3 g/L
Purification	Protein A + Ion Exchange	Multi-step Custom Process
Sub-Q Concentration	Up to 200 mg/mL	Limited