ChemPartner

Dedicated to LifeScience

ADCC/CDC

ASSAY

Model cell line selection	→	ADCC/CDC Assay optimization	→	Test samples and report	→

THE DATA CAN SUPPORT:

- Bulk antibody screening and lead Ab selection
- Stable cell line development and cell culture process development for CMC
- Drug release and IND filling

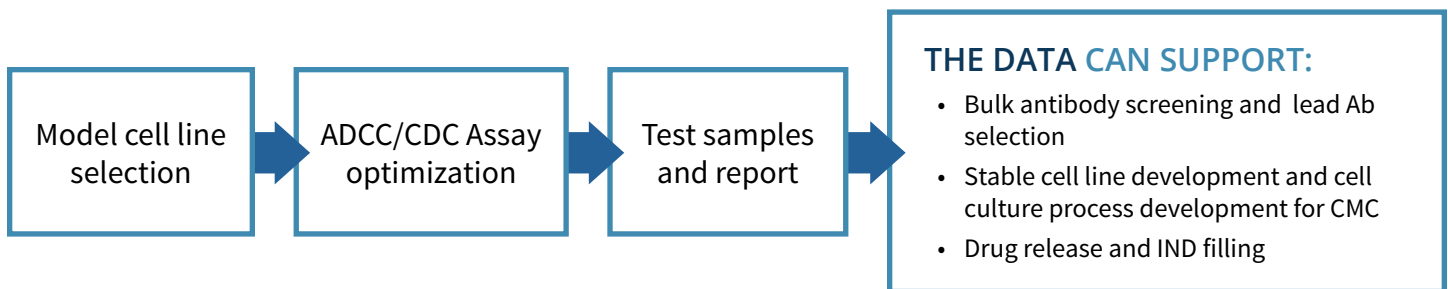
KEY FEATURES OF THE CHEMPARTNER ADCC/CDC ASSAY

- Stable NK92-CD16A cell line as ADCC effector cells or provide repeatable data
- Target cell labeling techniques to ensure detection of target cell-specific cytotoxicity
- Effective strategy to select model cell lines and optimize ADCC/CDC assay for new targets
- Antibody engineering techniques to enhance ADCC/CDC effect
- Established ADCC format including but not limited to CD20, Her2, EGFR, and CD52
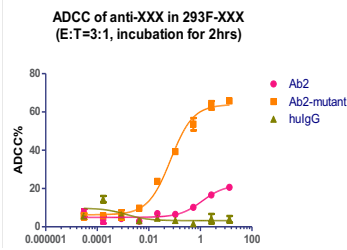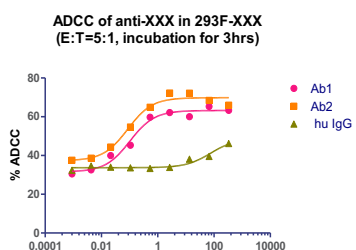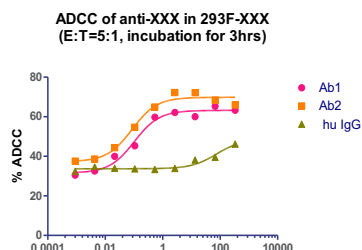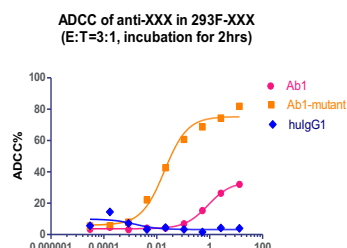- Fc receptor and C1q binding confirmation by Biacore or FACS

MODEL CELL LINE SELECTION

Cell line	Target protein expression level (FACS MFI)	Fc receptor expression level (FACS MFI)	Selection priority for ADCC assay
293F-XXX	6,769	32	1
OCI-AML-1	2,620	93	2
SK-MEL-28	1,427	56	2
MV-4-11	3,176	1,542	3
HL-60	825	419	3
THP-1	1,213	7,226	4

ASSAY OPTIMIZATION: EFFECT TO TARGET CELL RATIO AND INCUBATION TIME

AB ENGINEERING TO ENHANCE ADCC EFFECT

ADCC of anti-XXX in 293F-XXX
(E:T=5:1, incubation for 2hrs)

ADCC of anti-XXX in 293F-XXX
(E:T=10:1, Incubation for 2hrs)

ADCC of anti-XXX in 293F-XXX
(E:T=3:1, incubation for 2hrs)

ADCC of anti-XXX in 293F-XXX
(E:T=5:1, incubation for 3hrs)

ADCC of anti-XXX in 293F-XXX
(E:T=5:1, incubation for 3hrs)

ADCC of anti-XXX in 293F-XXX
(E:T=3:1, incubation for 2hrs)
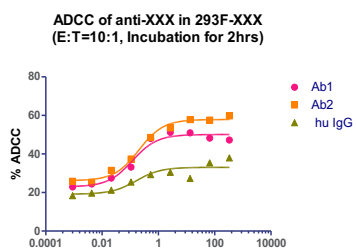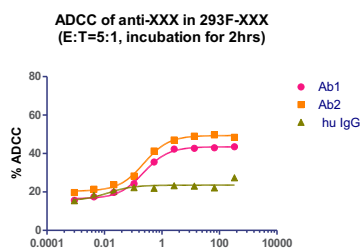
CASE STUDY II: ESTABLISHED ADCC ASSAY

Success in several targets,
including but not limited to:
- CD20
- HER2
- EGFR
- CD52

ADCC of Rituximab in Wil2-s
| EC50 | 3.656 |

ADCC of Herceptin in xBT474
| EC50 | 9.826 |

ADCC of anti-EGFR in A431
| EC50 | 20.70 |

ADCC of anti-CD52
| EC50 | 26.54 |

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