

# NOVEL ANTI-CD3 HEAVY CHAIN-ONLY ANTIBODIES FOR USE IN T-CELL ENGAGING THERAPEUTICS



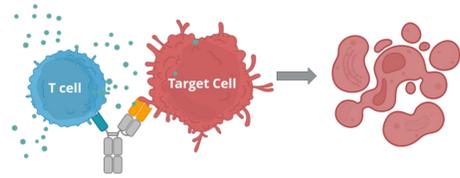
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## INTRODUCTION TO T CELL ENGAGERS

T cell engagers (TCEs) are an increasingly validated class of multispecific antibodies. Through pairing an arm targeting CD3 with an arm targeting a tumor associated antigen, the TCE forces the T cell and tumor cell into close proximity, triggering T cell activation leading to tumor cell killing<sup>1</sup>.

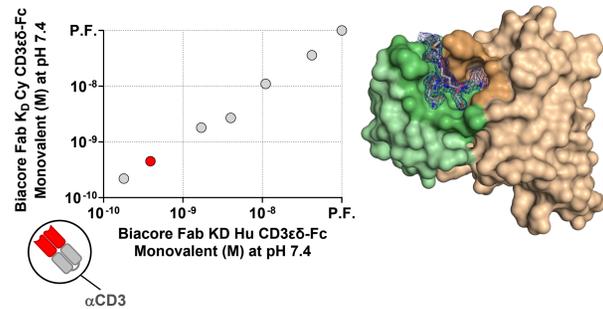
- Eight TCEs are currently FDA approved—six since 2022<sup>1</sup>
- TCEs can be engineered in multiple bi- and multispecific formats. Activation level can be influenced by format<sup>1</sup>

T cell engagers enable killing of target cells

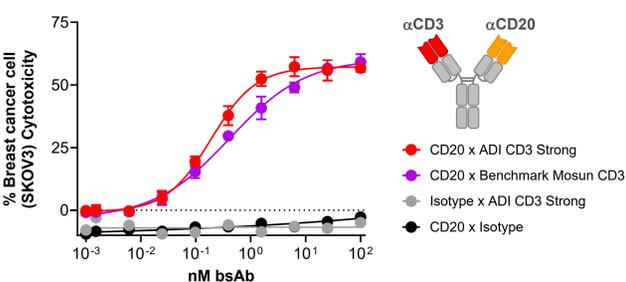


## ADIMAB $\alpha$ -CD3 CONVENTIONAL IgG LINEAGE: HUMAN x CYNO CROSS-REACTIVITY AND TUNABLE POTENCY

Adimab's  $\alpha$ CD3 IgG/Fab/scFv panel spans a wide range of affinities and has hu-cyno cross-reactivity

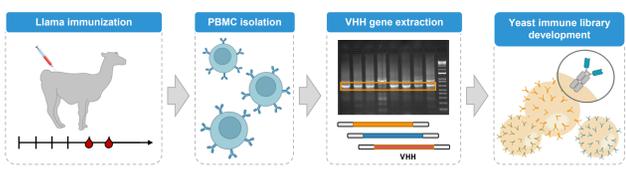


Bispecific CD3 x HER2 TCEs generated with Adimab's CD3 panel facilitate cytotoxicity (SKOV3)

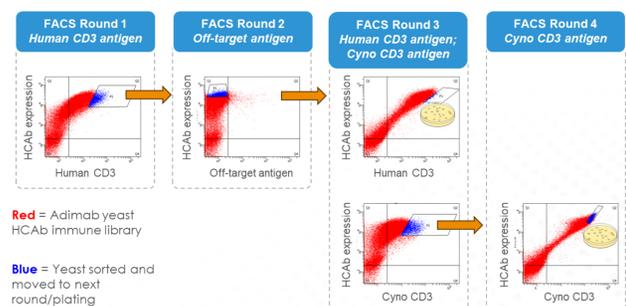


## EXPANDING ADIMAB'S CD3 BINDERS: HCAB DISCOVERY

Libraries built from llamas immunized against CD3

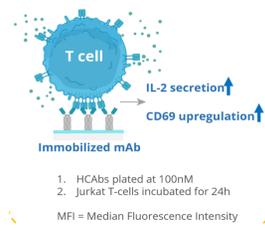


Rounds of selections performed on the Adimab yeast immune libraries to isolate  $\alpha$ CD3 HCABs with desirable properties

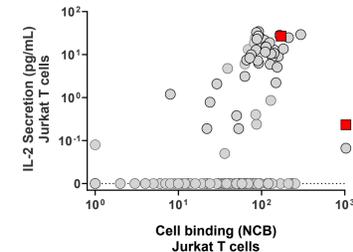


## STIMULATING $\alpha$ CD3 HCABS DISCOVERED WITH FAVORABLE DEVELOPABILITY

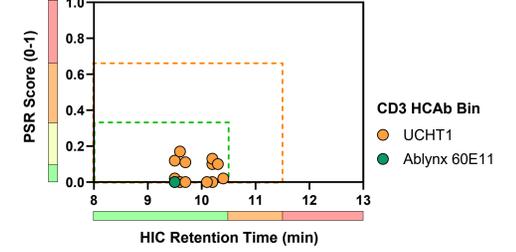
T-cell stimulation assay



~10% of discovered HCABs stimulate T-cells

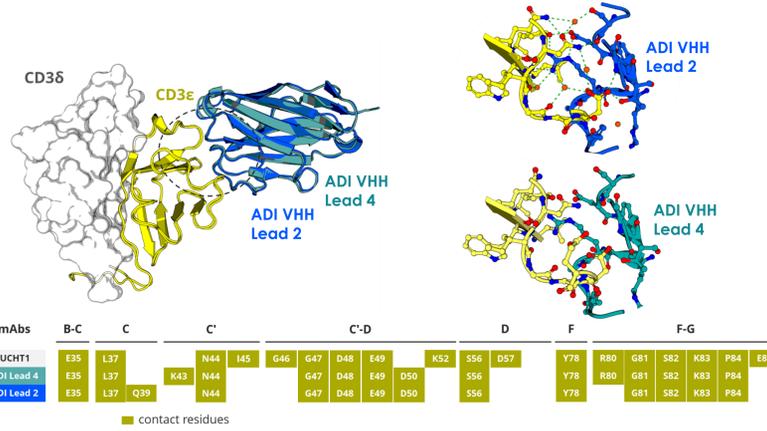


Stimulating HCABs have favorable developability

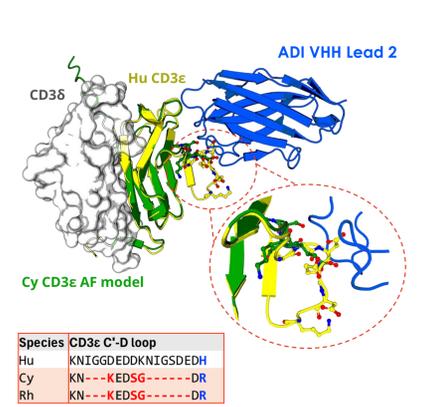


## VHH CRYSTAL STRUCTURES DEMONSTRATE BINDING TO CD3ε

Humanized ADI VHH Leads have overlapping binding patch with UCHT1

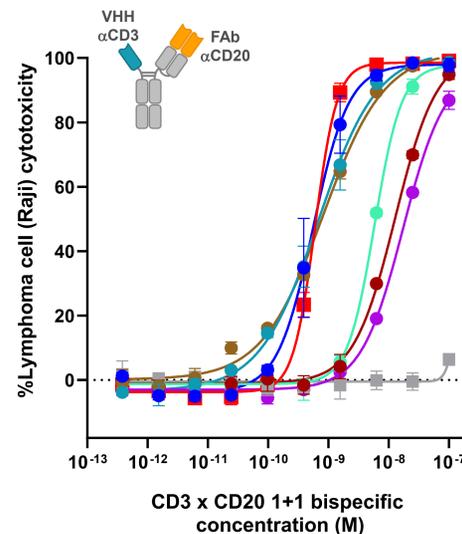


ADI VHH Leads are specific to Hu CD3ε

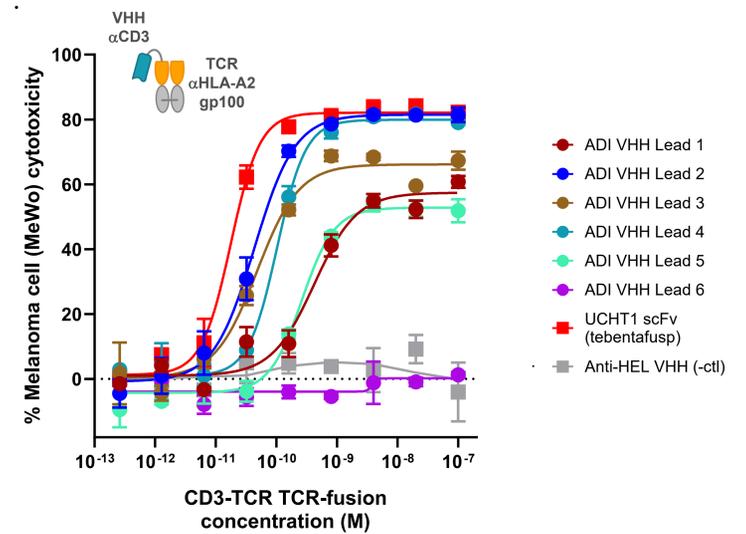


## $\alpha$ CD3 T-CELL ENGAGERS SHOW FUNCTIONAL ACTIVITY IN MULTIPLE FORMATS

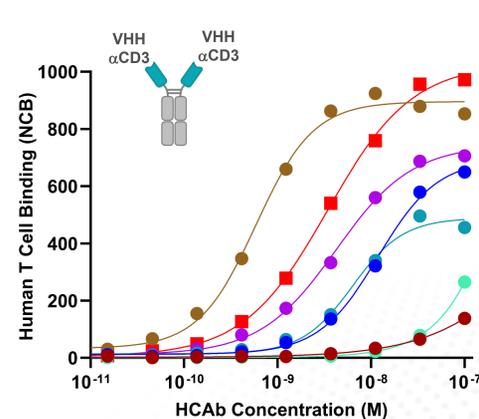
CD3 VHH x CD20 bispecific TCEs elicit killing



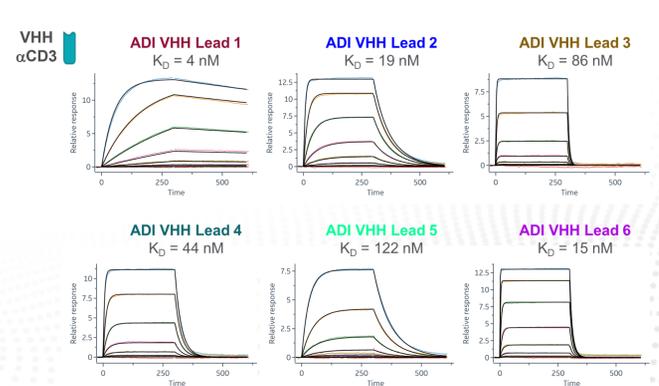
CD3 VHH - TCR fusion TCEs elicit killing



ADI VHH panel exhibits range in T-cell binding



ADI VHH panel spans wide affinity range



## SUMMARY

- CD3 VHs reduce the manufacturing complexity of TCEs
- Adimab's VHs have functional activity comparable to clinically validated TCEs in both IgG bispecific and TCR fusion formats
- Crystal structures obtained for two of the leads show over an overlapping binding patch with UCHT1
- CD3 VHs are accessible as part of Adimab's non-exclusive TCE offering

## Partnering with Adimab

Please reach out to our Business Development department at [bd@adimab.com](mailto:bd@adimab.com).

The QR code on the right links to Adimab posters and other resources.

