

Antibody Humanization

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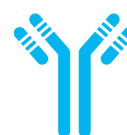
10-year experience
500+ antibody humanization projects delivered



As fast as **3 weeks**
to get desired humanized antibody



Combining **CDR-grafting**
with structure-based
back mutation



Guarantee comparable
binding affinity with
parental antibody



Homology modeling
algorithm within **MOE**



Several species like **mouse**,
alpaca/camel, **rabbit**.



Various detection methods
SPR, ELISA, FACS



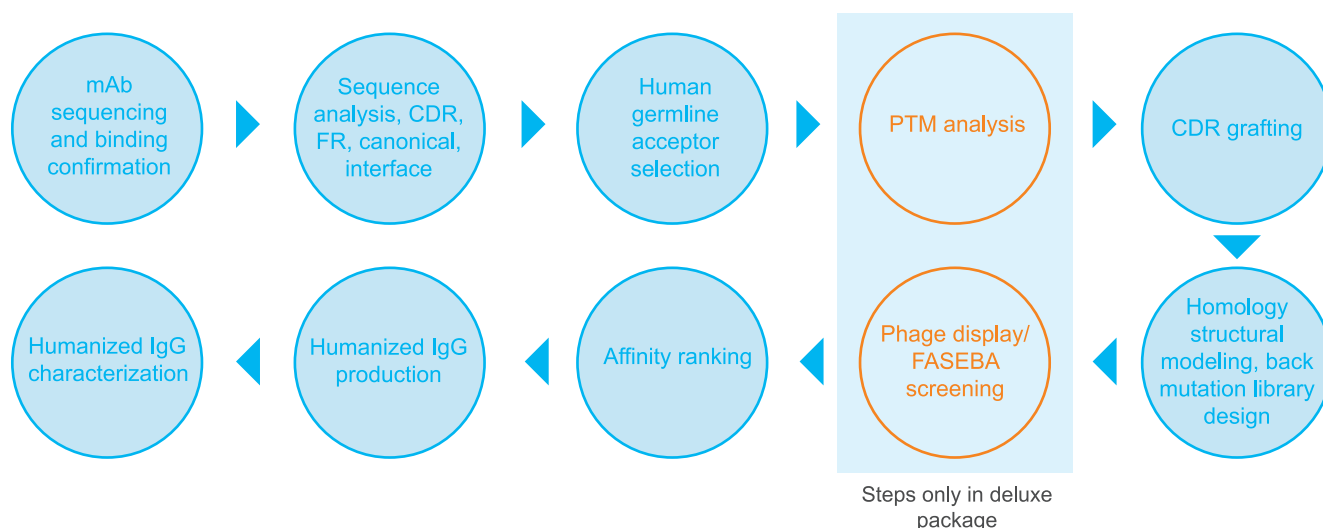
CHO-S expression system
High purity **HPLC**
Developability assessment

Deluxe Package

- Patented FASEBA (Fast Screening for Expression, Biophysical-properties and Affinity) screening platform to screen affinity, thermostability, expression level & epitope, no royalty burden
- Guaranteed delivery of best humanized antibodies with comparable affinity and least back mutation points.

Express Plus Package

- Fast turnaround time: **3 weeks**
- Guaranteed at least one humanized antibody with comparable affinity with parental antibodies



Case study 1: Biacore determination

samples	Chi ² (RU ²)	ka (1/Ms)	kd(1/s)	KD (M)	Rmax (RU)
humanized antibody	5.03E-02	3.67E+05	6.90E-05	1.88E-10	70.5
parental antibody	2.11E-01	4.02E+05	5.56E-05	1.38E-10	73.6

Table.1 Affinity kinetic analysis

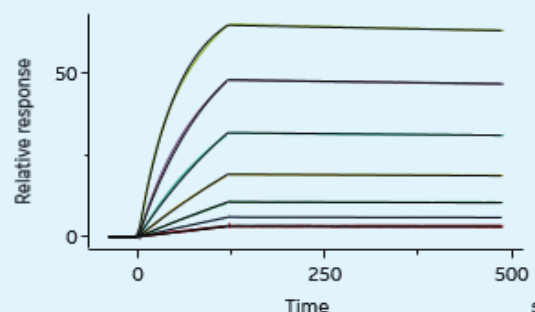


Fig.1 Affinity kinetic analysis of humanized antibody

Case study 2:ELISA determination

ELISA test was performed to evaluate binding between humanized and chimeric antibodies, and the same binding profile was observed based on the ELISA results.

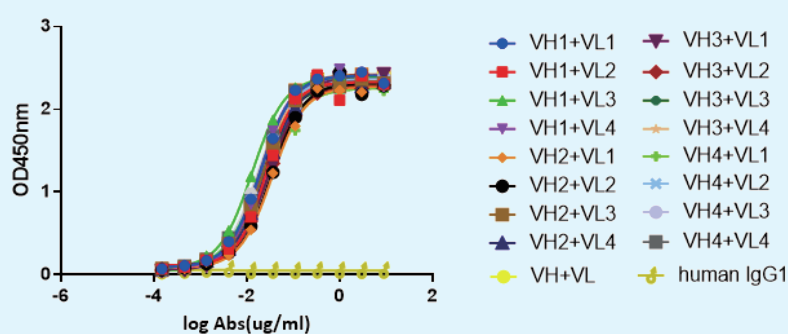


Fig.2 Comparison of the affinity of humanized antibodies to parental antibody

Case study 3:FACS determination

FACS test was performed to evaluate binding between humanized and chimeric antibodies, and the same binding profile was observed based on the FACS results.

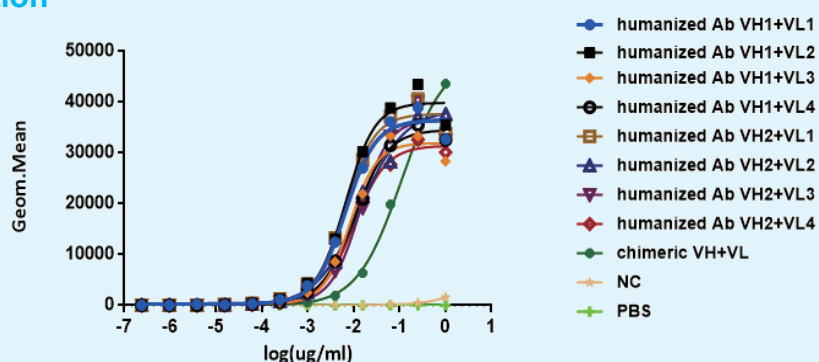


Fig.3 Comparison of the affinity of humanized antibodies to parental antibody

