

STRUCTURAL BIOLOGY

Scientific Expertise

The Structural Biology group at ChemPartner is equipped with state-of-the-art technology, such as X-ray crystallography, STD, NMR, SPR, TSA, DLS, and more.

This elite team is predominantly made up of scientists with masters degrees and led by Western-trained PhDs with years of biology experience.

FBDD Synthetic Chemistry SBDD Structural Biology Antibody Structural Protein Science Study X-ray crystallography, NMR, STD, SPR, TSA, DLS, and more **Antibody Discovery DNA to Structure LCP Crystallization**



CASE STUDY: FBDD Project

	PROTEIN 1	PROTEIN 2
Fragments Received	140 (17 batches)	18
Crystals Screened	982	78
Datasets Collected	221	19
Structures Delivered	77	15
Turnaround (best batch/overall)	15/30 days	15/15 days
Average Success Rate	55%	93.3%

- Regular and easy access to Shanghai Synchrotron Radiation Facility (SSRF)
- High quality structural data
- · Fast and steady turnaround

CASE STUDY:

Ab-Antigen Complex Structural Study

Crystal structure of antibody and antibody-antigen complex

- In-house developed Ab-specific screening kits
- Structural Modeling

Model based humanization design

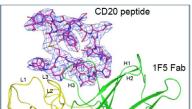
- Antigen modeling
- Epitope prediction

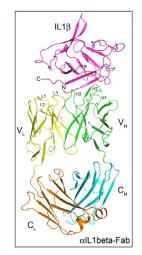
Bioinformatics Platform

- Stability prediction
- Immunogenicity prediction

CD20	peptide
L1 L3 H3	H ₁
	1
V _L	₹ V _H
2) 66	P
200	and .
257	74/
C _L	CH
	1F5 Fab
	IF5 Fab

DIFFRACTION DATA STATISTICS		
Space group	P2 ₁ 2 ₁ 2 ₁	
Unit cell (A)	a=86.76 b-164.06 c=296.38	
Resolution (A)	50.00-2.95 (3.00-2.95)	
Completeness (%)	16.3 (41.9)	
Rmerge (%)	6.159E-11	
I/s< >	6.0 (1.8)	
Redundancy	3.8 (2.4)	





DIFFRACTION DATA STATISTICS		
I 4122		
a=98.632 b-98.632 c=377.541		
50.00-2.75 (2.82-2.75)		
95.7 (80.0)		
18.9 (45.7)		
9.6 (1.85)		
7.7 (2.6)		

