ESRF
experimental report

Experiment title:

Structure of a complex of catalytic antibody with a transition state analogue.

Experiment number:

LS- 173

Beamline(s) used:	**Date and time of experiment:**	**Local contact(s):**
Beamline 4 - ID 2	from: 01/02/95 to: 02/02/95	B. Rasmussen

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Date of report
24/2/95

received
(completed by ESRF):

Experiment report *(If this work has been published. please give reference and abstracf):*

Crystals of a complex of the catalytic antibody CNJ206 with a transition state analogue were too small and the cryo-cooled crystals we have tested did not diffract further than 3.8 A. We have therefore collected data on the complex of a single amino-acid mutant of CNJ206 (close to the combining site), noted CNJ 174. One crystal of the complex was used to collect a data set of 180°. The experiment was performed at 100K, using the cryostat and the cryogenic nitrogen gas stream available at the ID2 station.

The conditions used were the following:
- Soaking of the crystal from 0% to 25% glycerol by 50% step.
- Small image plate (crystal-detector distance :250 mm).
- Oscillation range: 0.75° (The crystal had a high mosaicity and one rather big parameter c = 177.4A).
- Exposure time: 10s; 240 frames collected.

Tests on CNJ206 and data collection on CNJ174 added up to 2 shifts of beam time.

The data characteristics after processing with software MOSFLM (version 5.2- A. G. W. Leslie (1990) in 'Crystallographic computing', Oxford University Press) are as follows:
- maximum resolution: 3.0 Å
- completeness: 99 "/0
- Rsym on intensities: 9 % (30.0 % at 3.0 **Å** resolution).
- Average I/Sig :4.9

These data are the best ever obtained for this antibody. CNJ 174 Fab diffraction had been tested at LURE at the ambient temperature and diffracted to 4A.