



Experiment title: Macromolecular Crystallography at South-East Andalusia

Experiment number:
MX-2353

Beamline: ID23-2	Date of experiment: From: 18 February 2022 at 09:30 to 19 February 2022 at 08:00	Date of report: 23/02/2022
Shifts: 3	Local contact(s): Basu S	<i>Received at ESRF:</i>
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Crystals from Almeria (Table 1):

i) PLpro. We have cloned the PLpro (Papain-Like protease) in two different vectors to check the crystallization conditions. We have measured 2 crystals of this protein, but no diffraction was observed

Future perspectives: We are working to improve the procedure to obtain new and better crystals designing some mutants of this enzyme.

ii) PDZ2-ZO1. We have cloned some mutants of PDZ2-ZO1 to get the monomeric form of this domain. We have measured 10 crystals of this domain, but no diffraction was observed.

Future perspectives: We are working to improve the procedure to obtain better crystals.

iii) Lysozyme. We have measured 32 crystals of lysozyme obtained in presence of different metals. These crystals diffracted at high and medium resolution of $\sim 1.3-1.8 \text{ \AA}$.

Future perspectives: We are working to know the role of different metals in lysozyme characterization.

iv) PDZ3-PSD95. To study the polymorphism from this domain we have measured 31 crystals of PDZ3 domain. These crystals diffracted at high and medium resolution of $\sim 1.6-2.5 \text{ \AA}$.

Table 1. Data collected by the Almeria team.

PROTEIN	SAMPLES/DIFFRAC.	CONDITIONS	DIFFRACTION (\AA)	SPACE GROUP/CELL
PLpro	2/0	0.52 M sodium potassium tartrate, glycerol 35 %, Hepes pH 7.5	-	-
PDZ2-ZO1	10/0	0.2M magnesium acetate, 15 % MPD, 0.1 M Mes pH 6.5/ 1.7 % PEG 400, $(\text{NH}_4)_2\text{SO}_4$, 1.7 M, Glicerol 15 %, 0.1M Hepes pH 7.5	-	-
Lysozyme	32/27	0.1-0.2M NaCl/ MgCl_2 / CaCl_2 / ZnCl_2 / CuCl_2 / CoCl_2 / NiCl_2 , 0.1M Mes/Mops/Tris pH6.0-8.5, 100mM NaH_2PO_4	1.3-1.8	P43212/79 79 38 P411212/79 79 37 P212121/29 55 66
PDZ3-PSD95	36/31	30% PEG 4K, 0.2M $(\text{NH}_4)_2\text{SO}_4$, 0.1M Sodium acetate pH 3.5-4.8	1.6-2.5	H3/ 62 62 345 P1/25 28 29 75 71 79 P212121/29 33 88 P2/28 90 63 90 97 90