



Experiment title: Macromolecular Crystallography at South-East Andalusia

Experiment number:
MX-2254

Beamline: ID23-2	Date of experiment: From: 19 th November 2022	Date of report: 06/02/2023
Shifts: 3	Local contact(s): Christoph Mueller- Dieckmann	<i>Received at ESRF:</i>
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Crystals from Almeria (Table 1):

i) Mutants of PL^{pro} from SARS-CoV-2. We have cloned different mutants of PL^{pro} (Papain-Like protease) from SARS-CoV-2 to improve the crystallization of this protein. We have measured three different mutants. Also, we have tried to enhance the diffraction of these crystals by adding additives such as low molecular weight polyethylene glycol, glycerol, oil and dyes as bromophenol blue and flavine. We have working with dehydration methods, as well.

Future perspectives: We are working to improve the diffraction of the crystals by adding other cryo-protectants.

Table 1. Data collected by the Almeria team.

PROTEIN	SAMPLES/DIFFRAC.	CONDITIONS	DIFFRACTION (Å)	SPACE GROUP/CELL
pL ^{pro}	89/40	1.4 M Sodium Malonate pH6.0 3.4 M KCl, 5% PEG200, 0.1 M Hepes pH7.0 1.2 M K ₂ HPO ₄ , 0.8 M NaH ₂ PO ₄ , 0.1 M Sodium Acetate pH4.5 4.5 M NaCl, 0.1M Hepes pH7.5	3.6-1.9	P3121/ 82 82 134 90 90 90 I4122/142 142 142 90 90 90 P6522/115 115 252 90 90 120