



	<b>Experiment title:</b> Crystallographic data collection on crystals of the ligand-binding domain of the ultraspiracle protein (USP) nuclear receptor.	<b>Experiment number:</b> LS1658
<b>Beamline:</b> ID14	<b>Date of experiment:</b> from: 08.11.99 to: 08.11.99	<b>Date of report:</b> 28/02/2000
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Report:

The ecdysone nuclear receptor (EcR) triggers all stages of insect development and metamorphosis. In its active form, the ecdysone nuclear receptor is an heterodimer composed of the EcR receptor complexed to the ultraspiracle protein (USP) nuclear receptor, an ortholog to the retinoid X receptor (RXR). As a first step towards the determination of the structure of the EcR /USP heterodimer, we expressed and crystallized the USP ligand binding domain. Tetragonal crystals (space group P4322) of USP LBD were obtained from PEG4,000. They contain one molecule per asymmetric unit with unit cell parameters  $a = b = 58.2 \text{ \AA}$  and  $c = 144.7 \text{ \AA}$ . X-ray diffraction data were collected at 120 °K from a single frozen crystal at the ID14 beamline of the ESRF. The crystal diffracted X-rays to a resolution limit of 1.8 Å. The data set was 99.8% complete between 20 and 1.8 Å resolution with a global  $R_{sym}$  of 4.0 % (last shell 13.8 %). The resolution of the structure of USP LBD is underway using molecular replacement techniques.

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