



	<b>Experiment title:</b> Uracil DNA glycosylases	<b>Experiment number:</b> 1672
<b>Beamline:</b> ID14-1	<b>Date of experiment:</b> from: 08/06/2000      to: 09/06/2000	<b>Date of report:</b> 20/08/2000
<b>Shifts:</b> 1	<b>Local contact(s):</b> Stephanie Monaco	<i>Received at ESRF:</i> 28 AOUT 2000
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### Report:

Mismatch uracil DNA glycosylases (MUG) are DNA repair enzymes. Little is known about their reaction mechanisms and DNA-binding. We aim to understand the base excision repair mechanism of MUG's from different organisms by a combination of mutational studies and high resolution X-ray experiments.

So far we have co-crystallised DNA oligomers with a MUG from *S. Marcescens*. The cell dimensions of the monoclinic crystals are  $a=130.7\text{\AA}$ ,  $b=44.1\text{\AA}$ ,  $c=85.5\text{\AA}$  and  $\beta =109.4^\circ$ . The crystals diffracted to  $2.2\text{\AA}$  on ID14-3, but due to intimate twinning only a partial data set was collected. Using this information we have recently grown crystals of a MUG/DNA complex which are not twinned.