

Reamlin

ID14EH2

Shifts:

e:

Experiment title: Thymidine monophosphate kinase		Experim numbe Ls1656
Date of experiment:		Date o
from: 6/7/00	to: 7/7/00	report
Local contact(s):		Received

ESRF.

Names and affiliations of applicants (* indicates experimentalists):

Thomas Ursby* ESRF-LCCP/IBS

Dominique Bourgois* – LCCP/IBS

J. Lescar

Report:

We collected data of soaked thymidine monophosphate kinase (TMPK) crystals. The soaking of substrate and/or substrate analogs are done in order to prepare experiments where we want to trap intermediate structures in the enzymatic reaction. Several different soaking conditions were tried and two datasets were collected of TMPK with NPE-TMP (caged TMP) (dmin 1.8A, Rsym 5.9%, 99% complete with a redundancy of 5.3) and one data set of TMPK with NPE-TMP that had previously been photolysed (dmin 1.9A, Rsym 7.3%, 100% complete with a redundancy of 6.5). The photolysis will in a subsequent experiments start the enzymatic reaction. The binding of the substrate and the changes due to the photolysis have been confirmed by Fourier difference maps. The TMPK crystals are hexagonal (space group P6522, a=76A, c=135A).