



Experiment Report Form

The double page inside this form is to be filled in by all users or groups of users who have had access to beam time for measurements at the ESRF.

Once completed, the report should be submitted electronically to the User Office using the **Electronic Report Submission Application:**

<http://193.49.43.2:8080/smis/servlet/UserUtils?start>

Reports supporting requests for additional beam time

Reports can now be submitted independently of new proposals – it is necessary simply to indicate the number of the report(s) supporting a new proposal on the proposal form.

The Review Committees reserve the right to reject new proposals from groups who have not reported on the use of beam time allocated previously.

Reports on experiments relating to long term projects

Proposers awarded beam time for a long term project are required to submit an interim report at the end of each year, irrespective of the number of shifts of beam time they have used.

Published papers

All users must give proper credit to ESRF staff members and proper mention to ESRF facilities which were essential for the results described in any ensuing publication. Further, they are obliged to send to the Joint ESRF/ ILL library the complete reference and the abstract of all papers appearing in print, and resulting from the use of the ESRF.

Should you wish to make more general comments on the experiment, please note them on the User Evaluation Form, and send both the Report and the Evaluation Form to the User Office.

Deadlines for submission of Experimental Reports

- 1st March for experiments carried out up until June of the previous year;
- 1st September for experiments carried out up until January of the same year.

Instructions for preparing your Report

- fill in a separate form for each project or series of measurements.
- type your report, in English.
- include the reference number of the proposal to which the report refers.
- make sure that the text, tables and figures fit into the space available.
- if your work is published or is in press, you may prefer to paste in the abstract, and add full reference details. If the abstract is in a language other than English, please include an English translation.



	Experiment title: Constitutive G protein BAG Time Birkbeck College	Experiment number: LS-1941 (LS-1810)
Beamline: ID14-2 ID29	Date of experiment: from: 14/06/01 to: 15/06/01 from 02/02/01 to:03/02/01	Date of report: 7/8/01 Update from 27/2/01
Shifts: 2 1	Local contact(s): Joanne McCarthy Andy Thompson	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Dr Nicholas Keep * Mrs Halina Garavini * School of Crystallography and BBSRC Bloomsbury Centre for Structural Biology, Birkbeck College, Malet St London WC1E 7HX UK		

Report: Improvements to the purification, crystallisation conditions and freezing protocols meant that the this protein which only diffracted to 3.5 Å with poor spot shape on the previous synchrotron trips gave good diffraction to 2.1 Å on ID14-2 in June. A full data set in space group P43212, cell 59.45, 59.45, 233.0 was collected to this resolution with Rmerge=0.077(0.322). Two copies were found in the unit cell by molecular replacement using a related small G protein. The structure has now been refined to R=18.4 Rfree=21.5.

Although a member of the well described small G protein family, this protein is unusual in that it appears to be physiologically constitutively in the GTP state, similar to some dominant mutants of ras. Using the crystal structure we are able to see some clear reasons for this. We will try and make mutants that do turn over GTP and with our collaborators see what the effect on the cells are. Our collaborators are already finding binding partners for this protein and we hope to obtain some complexes for crystallisation. We are about to prepare a manuscript on this structure.

A fuller report on the biological implications of this structure will be made in February 2002.

