



	Experiment title: Gelsolin/actin complexes: Alwyn Jones BAG	Experiment number: LS-2187
Beamline: ID14 3	Date of experiment: 20-21 May 2003	Date of report: 30/08/2004
Shifts:	Local contact(s): Chloe Zubieta	
Names and affiliations of applicants (* indicates experimentalists): Robert Robinson, IMBIM, Uppsala University*		

Report:

The special and temporal regulation of actin polymerization provides the force for cell locomotion. Gelsolin is an actin filament severing and capping protein that regulates the timing of actin polymerization through controlled capping or uncapping of filament ends. Gelsolin also contributes to regulating the total number of filaments through its severing function.

In this trip we collected 5 data sets of soaks of a structure that had been solved on ID29 (see reference below). The soaks were analogues of PIP2 a molecule that releases gelsolin from an actin filament. Unfortunately, there was no density for the PIP2 analogues in the maps.

Narayan, K., Chumnamsilpa, S., Choe, H., Irobi, E., Urosev, D., Lindberg, U., Schutt, C. E., Burtnick, L. D. & Robinson, R. C. (2003) Activation in isolation: exposure of the actin-binding site in the C-terminal half of gelsolin does not require actin. *FEBS Lett.* **552**, 82-85. ESRF data only.