



	Experiment title: TB Threonine synthase. BAG: Uppsala (Jones)	Experiment number: MX-274
Beamline: ID14-2	Date of experiment: From: 02 August 2004 to: 04 August 2004	Date of report: 30 July 2004
Shifts: 2	Local contact(s): Dr Elena MICOSSI	
Names and affiliations of applicants (* indicates experimentalists): T. Alwyn Jones, Uppsala University, alwyn@xray.bmc.uu.se * Martin Högbom, Uppsala university, hogbom@xray.bmc.uu.se * Anette Roos, Uppsala university, anette@xray.bmc.uu.se		

Report:

Threonine synthase performs a beta,gamma-replacement reaction transforming L-homoserine phosphate into threonine and inorganic phosphate. The enzyme is dependent on a pyridoxal 5'-phosphate (PLP) cofactor. The gene encoding TS has been identified as essential in *Mycobacterium tuberculosis* by Himar1-based transposon mutagenesis and as the threonine biosynthetic pathway is not present in mammals it constitutes a promising drug target.

One dataset extending to 2.7 Å resolution was collected. Because of a long cell axis (some 370 Å) fine slicing was necessary. The data has been scaled and the structure could be solved by molecular replacement methods.