



Experiment title:  
LIV leucine, isoleucine, valine-binding protein  
from *E. coli* I. BAG: Uppsala (II)

**Experiment  
number:**  
MX-274

**Beamline:**  
ID14-EH2

**Date of experiment:**  
from: 2 August 2004 to: 4 August 2004

**Date of report:**  
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**Shifts:**  
6

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*Received at ESRF:*

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**Report:**

The leucine, isoleucine-, valine-binding protein of *E. coli* is closely related to the leucine-binding protein, LBP, but has distinct substrate specificity. At the present time, there is only a structure of the open, ligand-free form of LIV available. The closed form is that associated with ligand binding, and it is this form that must be studied to allow the specificity to be understood. As both closed and open forms are available for LBP, the conformational changes of these two proteins can also be compared.

Two data sets were collected for LIV in complex with leucine, which will allow a structure to be solved at 2.0 Å resolution.