

Running title: Structure of Mil, an archaeal Imp4-like protein.

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Supplementary information

Fig 1. Stereo-view of the electron density map ($2DF_o - mF_c$) in the region around the disulphide bridge. The map is shown at 1σ level. Secondary structural elements are colored as in Fig 2. A dashed line represents the hydrogen bond between Glu101 and Gly99. The electron density shows that the two cysteines present in the molecule form a disulphide bridge. Since these cysteines are not conserved, not even within the archaeal group, this disulphide bridge seems to be a unique feature in the structure of Mil. Cys96 is in the middle of the loop connecting the βF strand to the $\alpha 3$ helix, while Cys104 sits on the latter helix. Thus, the disulphide bridge is likely to stabilize the conformation of the loop containing Cys104. Further stabilization could be attained by a hydrogen bond between the side chain of Glu101 and the backbone amide of Gly99.

