

Abstract No. evdo275

Overproduction, Purification, Crystallization and Preliminary X-ray Diffraction Analysis of YopM, an Essential Virulence Factor Extruded by the Plague Bacterium Yersinia Pestis

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Beamline(s): X9B

ABSTRACT: A recombinant form of Yersinia pestis YopM with a C-terminal polyhistidine affinity tag has been overproduced in Escherichia coli, purified to homogeneity and crystallized using the hanging-drop vapor-diffusion technique. Several different crystal forms were obtained. The most suitable crystals for X-ray diffraction belonged to space groups P4(2)22 (unit-cell parameters $a = 109.36$, $b = 109.36$, $c = 101.50$ Å) and C222(1) (unit-cell parameters $a = 71.73$, $b = 121.85$, $c = 189.79$ Å). With a synchrotron-radiation source, these crystals diffracted to 2.4 and 1.9 Å resolution, respectively.