



	Experiment title: BAG-Frankfurt: Quinol:Fumarate-Reductase from <i>Campylobacter jejuni</i>	Experiment number: MX-135
Beamline: ID14EH1	Date of experiment: from: 01-AUG-03 to: 01-AUG-03	Date of report: 29.02.04
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Report:

Quinol:fumarate reductase (QFR), couples the reduction of fumarate to succinate to the oxidation of quinol to quinone, in a reaction opposite to that catalysed by mitochondrial complex II (succinate dehydrogenase). QFR from *Campylobacter jejuni* consists of three protein subunits, FrdA, FrdB, and FrdC. Crystals of this bioenergetically important membrane protein complex have recently been obtained. During the beamtime available for this subproject, two data sets could be collected (see Table 1) at $T = 4^{\circ}\text{C}$ from just one crystal each of space group $P2_12_12_1$ with unit cell dimensions of $a = 130 \text{ \AA}$, $b = 175 \text{ \AA}$, $c = 203.5 \text{ \AA}$.

Table 1. Diffraction data collected at ESRF ID14-EH1 on two orthorhombic crystals of *C. jejuni* QFR.

	resol. range [\AA]	measured reflections	unique reflections	complete [%]	R_{sym} [%]
1b_c_1_c	70.0-3.60 3.73-3.60	565,067	54,352 5,305	99.6 98.4	12.1 47.6
7c_c_1_2	50.0-3.90 4.04-3.90	344,735	80,087 7,904	98.1 96.6	9.6 33.0