



	Experiment title: FRANKFURT BAG: Photosynthetic reaction center from <i>Rhodobacter sphaeroides</i>	Experiment number: MX-135
Beamline: ID14-EH3	Date of experiment: from: 20-JULY-2003 to: 22-JULY-2003	Date of report: 13-Jan-2004
Shifts: 2	Local contact(s): Dr. Ingar Leiros	<i>Received at ESRF:</i>
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Report:

We recently determined the structure of the His M266 to Leu point-mutation of the photosynthetic reaction center from *Rhodobacter sphaeroides* at a resolution of 3.3 Å. Crystals belong to the spacegroup P3₁2 with the unit cell parameters a=b=138.9Å, c=183.9Å, and $\gamma=120^\circ$. The electron density maps ($2F_o-F_c$ and F_o-F_c) clearly show the mutation from a histidine to a leucine. The mutated His M266 is one of the four histidines, which coordinate the non-heme iron of the reaction center. Interestingly, the mutation does not influence the position of the iron. The refinement has proceeded to an R_{cryst} of 16.8% and a corresponding R_{free} of 20.9%, employing REFMAC5 as refinement program.