Experimental report

Beamtime the 15 September 2017 on ID30B

Cytochrome bc_1 complex (complex III) transfers electrons delivered by ubiquinone to cytochrome *c* (cyt *c*) and, concomitantly, translocates net four protons across the membrane, thus contributing to the proton motive force used later by the ATP-synthase to produce ATP. Cytochrome bc_1: cytochrome *c* complex formation is, thus, a crucial event occurring to facilitate electron shuttling during oxidative phosphorylation in mitochondrial respiration. A high resolution structure of yeast cytochrome bc_1 in complex with cyt *c* is available (Solmaz and Hunte, 2008, *J Biol Chem*) and we want to further investigate the one cyt *c* per bc_1 complex dimer stoichiometry observed in this structure.

In the allocated beamtime, we collected diffraction data from about 50 crystals of this cyt bc_1: cyt *c* ternary complex obtained via Fv antibody fragment mediated crystallization. The best dataset was diffracting x-rays to 2.5 Å-resolution and is currently being analyzed.