**Table 1**

Crystallization conditions for the observed crystals obtained in this work.

| Crystallization conditions | | Diffraction (Å) |
|---|---|---|
| 1A | 250 mM KCl, 25mM MOPS (pH 7.0), 6% PEG 4000, 10% Glycerol | - |
| 2A | 100 mM $MgCl_2$, 50 mM Tris (pH 8.5), 6% PEG 4000 | 4.20 |
| 3A | 25 mM HEPES (pH 7.5), 5% PEG 10000, 2% Ethylene glycol | 6.4 |
| 4A | 50 mM NaCl, 50 mM BICINE (pH 9.0), 10% PEG 550 MME | 6.7 |
| 5 | 50 mM $MgCl_2$, 50 mM ADA (pH 6.5), 6% PEG 6000 | - |
| 6 | 50 mM $(NH_4)_2SO_4$, 25 mM MES (pH 6.5), 7.5% PEG MME 5000 | 10.4 |

*Note.* The end concentrations in the crystallization drop are provided. Data for the crystallization conditions 1A-4A correspond to the crystals shown in Fig. 2.

**Table 2**

Crystallographic data processing & refinement

| Data collection | AcrB crystal from GluP condition |
|---|---|
| X-ray source and wavelength | SLS, PX06SA, 0.9000 Å |
| Detector | MAR CCD 225 mm |
| Space group | *H32* |
| Unit-cell dimensions (Å) | 146.53, 146.53, 515.02 |
| Resolution | 35 – 4.2 Å |
| Observations; unique reflections | 66936; 14936 |
| Mosaicity | 0.93° |
| $I/\sigma(I)$; $R_{merge}$ * | 8.8 (1.3); 0.102 (0.561) |
| Completeness (%) | 94.8 (74.6) |

* $R_{merge} = \sum_{hkl} \sum_i | I_i(hkl) - \langle I(hkl) \rangle | / \sum_{hkl} \sum_i I_i(hkl)$

*Note.* Statistical values in parentheses correspond to the highest resolution shell.

Figure 1

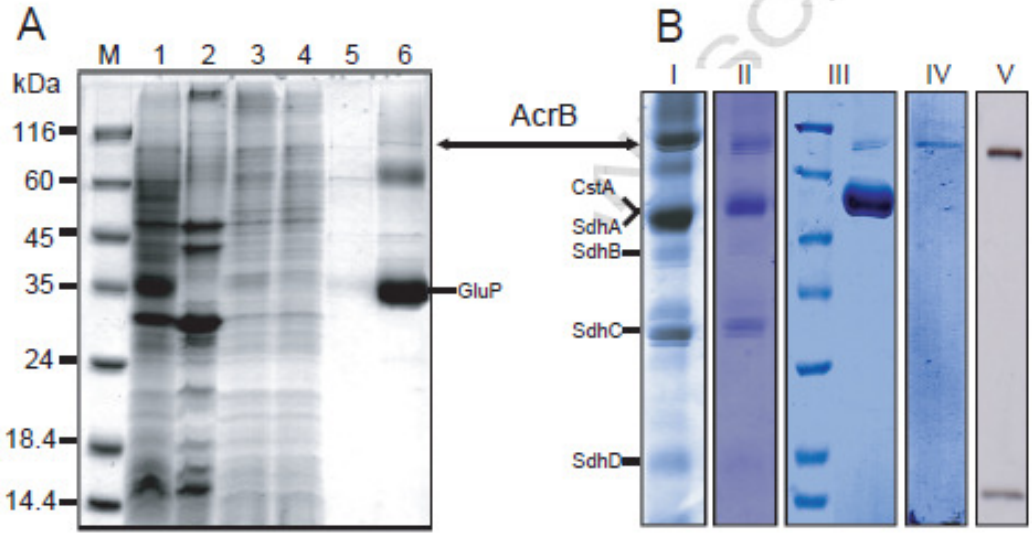
A
M 1 2 3 4 5 6
kDa
116
60
45
35
24
18.4
14.4
GluP
AcrB
B
I II III IV V
CstA
SdhA
SdhB
SdhC
SdhD

Figure 2