bioengineering

MDPI

Supplementary Materials

An Aquaporin Gene (*KoPIP2;1*) Isolated from Mangrove Plant *Kandelia obovata* Had Enhanced Cold Tolerance of Transgenic *Arabidopsis thaliana*

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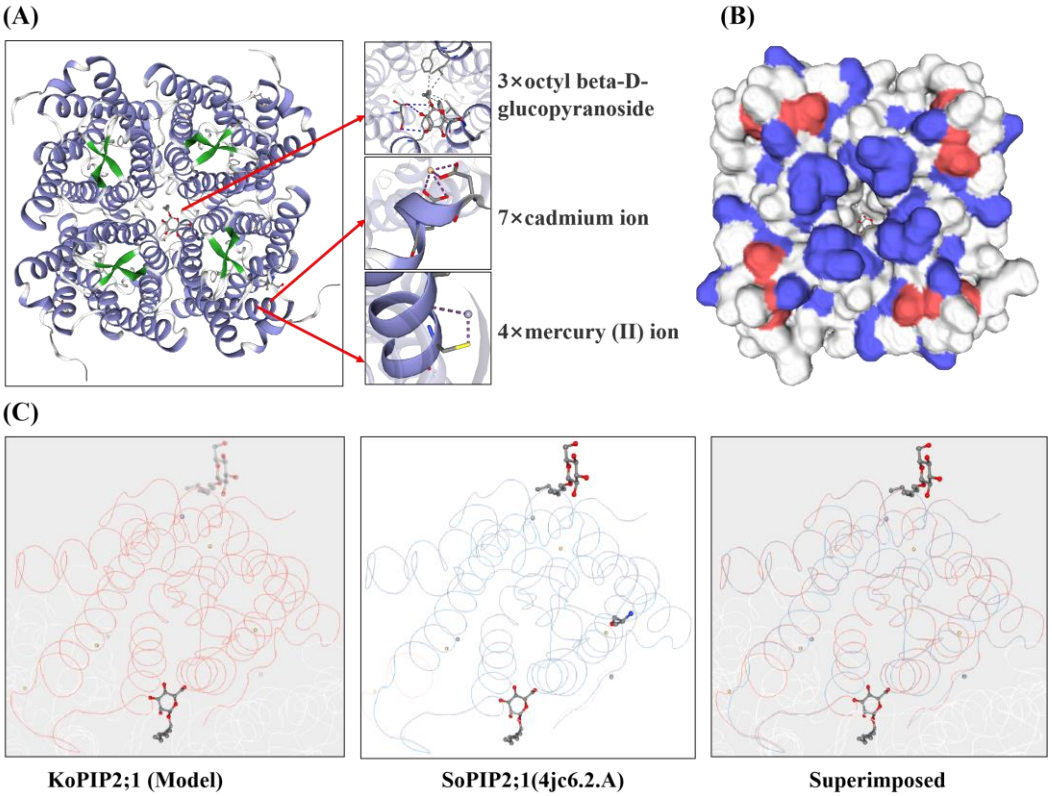

Figure S1. Prediction of 3D structure of KoPIP2;1 and comparison with its template. The 3D models of KoPIP2;1 and its template (SoPIP2;1 (*Spinacia oleracea* PIP2;1), SMTL id: 4jc6.2.A) were produced by the homology modeling SWISS-MODEL. (**A**) Left was the 3D model of KoPIP2;1 predicted ribbon structures, with α-helix (purple) and β-strand (green), random coil (white). Right was close-up view of octyl β-D-glucopyranoside-binding, cadmium-binding and mercury-binding based on homology modeling. Cadmium and mercury were shown as yellow and purple spheres, respectively. Ligands for the heavy atoms were shown in stick representation being labelled. (**B**) View of the surface topology of KoPIP2;1 showing the distribution of the electrostatic potentials. Protein surface was colored according to areas charged positively (blue), negatively (red) and neutrally (white). (**C**) Figures were predicted trace structures of KoPIP2;1 and its template SoPIP2;1 and their superimposition.