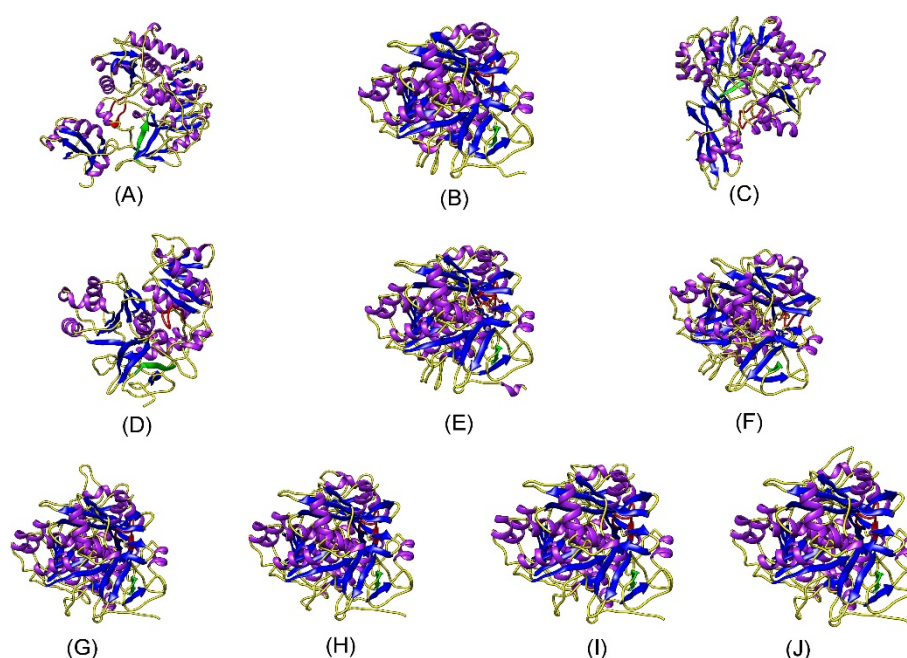


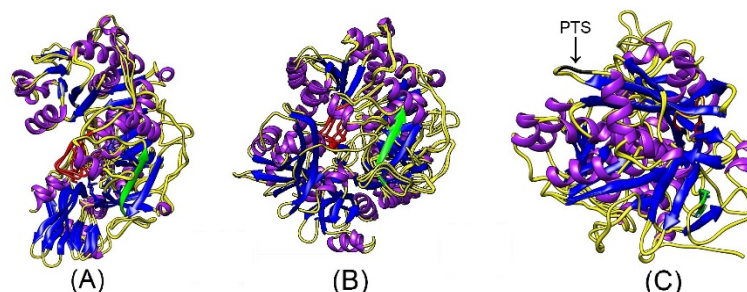
Supplementary Materials

Characterization, expression profiling, and functional analyses of a 4CL-like gene of *Populus trichocarpa*

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Supplement Figure 1. Image of the predicted tertiary structure of 4CL and 4CL-like proteins. the α -helices are represented in yellow, the β -strands are represent in purple, and random coils are represented in blue. . For special domains, box I is highlighted in red and box II is highlighted in green. (A) Tertiary structure prediction of Pt4CL1. (B) Tertiary structure prediction of Pt4CL4. (C) Tertiary structure prediction of Pt4CL5. (D) Tertiary structure prediction of At4CL1. (E) Tertiary structure prediction of At4CL2. (E) Tertiary structure prediction of At4CL3. (G) Tertiary structure prediction of *Pt4CL-like*. (H) Tertiary structure prediction of ACS from *Hevea brasiliensis* (XP_021666022.1). (I) Tertiary structure prediction of ACS from *Jatropha curcas* (XP_012073683.1). (I) Tertiary structure prediction of ACS from *Manihot esculenta* (XP_021601125.1).



Supplement Figure 2. Structure comparison of the predicted tertiary structures of Pt4CL1, Pt4CL4, Pt4CL5, At4CL1, At4CL2, At4CL3 and 4CL-like proteins. In the image representation, the α -helices are represented in yellow, the β -strands are represent in purple, and random coils are represented in blue. (A) Structure comparison of the predicted tertiary structure of Pt4CL proteins. For special domains, box I is highlighted in red and box II is highlighted in green. (B) Structure comparison of

the predicted tertiary structures of At4CL proteins. For special domains, box I is highlighted in red and box II in green. (C) Structure comparison of the predicted tertiary structure of 4CL-like proteins from *Populus trichocarpa* (XP_002307770.2), *Hevea brasiliensis* (XP_021666022.1), *Jatropha curcas* (XP_012073683.1), and *Manihot esculenta* (XP_021601125.1). The special domain of the PTS sequence is highlighted in black.