

Determination of the three-dimensional structure of rice *O*-methyltransferase 17

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An *O*-methyltransferase was isolated from rice. Its characterization revealed that flavonoids substituted ortho dihydroxy groups on aromatic ring were used as substrates. We named it ROMT17. To analyze structural characteristics, we carried out the structural study of ROMT17 by homology based modeling. The homology between ROMT17 and 1vid (catechol-*O*-methyltransferase) was 27.65%¹⁾. 1vid was used as a template, and the structure of ROMT17 was obtained by modeller. Molecular dynamics was performed for 500ps²⁾. During molecular dynamics, total energy was stabilized and the secondary structures were conserved. Based on this structural data, we can analyze interaction between the enzyme and substrates.

References

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